

Management Plan for Legally-Designated Open Space Properties

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View of the San Francisco Peaks from Observatory Mesa © Tom Bean

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Executive Summary

The City of Flagstaff's Open Space Program was founded in 1998 as an outgrowth of the Flagstaff Area Open Space and Greenways Plan. The Program exists to protect and restore Flagstaff's natural, cultural, and scenic resources to enhance recreational and educational opportunities for residents and visitors.¹ Open Space properties managed by the Program serve as a land resource, recreational destination, wildlife habitat, and transportation corridor while protecting other natural resources.² The following are properties currently managed by the Program: Picture Canyon Natural and Cultural Preserve, Observatory Mesa Natural Area, McMillan Mesa Natural Area, and Schultz Creek Trailhead.

In 2004, Flagstaff voters approved two separate open space bond initiatives, one dedicated to acquiring neighborhood open space and properties for the Flagstaff Urban Trail System and another bond dedicated to purchasing State Trust land on Observatory Mesa. These bond funds were leveraged against two separate Growing Smarter grants from Arizona State Parks to acquire 2,751 acres of legally-designated open space in 2012 and 2013 (Picture Canyon Natural and Cultural Preserve and Observatory Mesa Natural Area, respectively). As part of these acquisition processes, conservation easements were granted to Arizona State Parks to permanently preserve the conservation values of both properties (Appendices D and L).

Subsequently, Proposition 413 was passed by voters in 2016 to create the McMillan Mesa Natural Area, including approximately 300 acres of city property. The most recent property legally-designated as open space is the Schultz Creek Trailhead. This 20-acre property was annexed into City limits in 2017 and rezoned to protect the natural resources and cultural history.

Picture Canyon, Observatory Mesa, McMillan Mesa, and Schultz Creek Trailhead were protected for the express purpose of preserving the unique conservation values associated with these properties, specifically their open space value, unique scenic beauty, native vegetative communities, diverse wildlife habitats, and historical/cultural resources. The acquisition of these properties allows the City to protect these unique conservation values from potential threats, including encroachment from adjacent landowners, over-use of the property by the community, elevated fuel loads, illegal vehicle trespass, spread of invasive species, and development interests.

Open Space Program staff developed this management plan in partnership with stakeholders to provide a framework for managing the natural, ecological, historical, and recreational resources on legally-designated open space properties to minimize conflict and degradation. The plan identifies general management policies in Chapter 2, and specific resource- and property-related management goals, policies, and actions in each subsequent chapter.

¹ Mission for the Open Space Program in the City of Flagstaff Sustainability Section Strategic Plan for FY 2018-2020.

² City of Flagstaff Open Spaces Commission Strategic Plan, 2019

The management prescriptions included herein apply to all lands managed by the Open Space Program. The plan is a dynamic document that will be updated and revised, as needed. The Priority Action Plans for each property will be updated biennially.

Overall Management Goals: There are 5 overarching management goals for legally-designated open space properties:

1. To maintain, restore, and enhance the natural ecosystem processes, including watershed health (including intermittent streams), forest structure, native plant communities, and rare habitat types.
2. To protect past and present cultural resources.
3. To maintain and protect diverse and healthy wildlife populations.
4. To provide opportunities for public use of these properties through passive recreational use, resource interpretation, education, scientific research, and other compatible activities in a manner that is consistent with the preservation of the conservation values of the site and the management goals.
5. To maintain and develop partnerships that facilitate resource management, stewardship, and conservation.

Plan Organization: This Management Plan is organized into 7 core sections to address the resources, uses, and values of these properties.

Chapter 1: Management Coordination

This section outlines the working relationship between the various stakeholders involved in the management of legally-designated open space properties and the roles associated with each of those groups.

Chapter 2: General Management Policies

This section outlines management goals, policies, and planned actions related to all properties managed by the Open Space Program, including its natural resources, archaeological and/or historic resources, and public use.

Chapters 3-7 outline property-specific management goals, policies, and actions related to managing natural resources, archaeological and/or historic resources, and public use:

Chapter 3: Picture Canyon Natural and Cultural Preserve

Chapter 4: Observatory Mesa Natural Area

Chapter 5: McMillan Mesa Natural Area

Chapter 6: Complementary Open Space

Chapter 7: Open Space Connectors

Chapter 1: Management Coordination

1.0 Internal Management Coordination and Administration

Introduction: The day-to-day operations of legally-designated Open Space properties are coordinated by the City of Flagstaff Open Space Program and supported by: (1) an internal City workforce; (2) the City of Flagstaff Open Spaces Commission; (3) the Flagstaff Police Department; (4) the Flagstaff Fire Department; (5) Coconino National Forest; (6) Arizona State Parks; (7) the Coconino County Sheriff's Office; (8) local organizations; and (9) volunteers.

Staffing: City staff will oversee all operations pertaining to but not limited to: (1) forest health; (2) policy enforcement; (3) volunteer efforts; (4) permitting; (5) resource management; (6) facility development; and (7) fiscal responsibilities. City Staff includes:

Open Space Specialist: The Open Space Specialist will provide resource management in accordance with the conservation values and regulatory requirements of the Open Space properties. The Open Space Specialist oversees, and directly implements or facilitates all management activities within the properties, including budgeting, planning, implementing, reporting, and monitoring. The Open Space Specialist coordinates with Parks, Real Estate, and community partners to establish property boundaries, install fencing, decommission existing roads, restore native vegetation, and provide signs throughout the properties. The Open Space Specialist also manages volunteer activities, such as invasive weed removal projects, community cleanups, and trail days, as well as coordinates community marketing, outreach, and education efforts. The Open Space Specialist position is housed in the Sustainability Section within the City of Flagstaff City Manager's office.

The responsibilities of the individuals, organizations, and/or agencies involved in the management of these properties are as follows:

City of Flagstaff Internal Task Force: The Internal City Task Force will consist of members from City departments including: (1) Sustainability; (2) Fire; (3) Police; (4) Utilities; (5) Parks; (6) Planning; (7) Real Estate; and (8) Stormwater. This Task Force will meet quarterly to discuss issues related to the management of legally-designated open space properties.

City of Flagstaff Open Spaces Commission: The Open Space Commission consists of seven voting members – 6 Council-appointed members and a representative from the Planning and Zoning Commission. The Commission serves as an advisory body for the acquisition, management, use, restoration, enhancement, protection, and conservation of legally-designated open space properties. The Open Space Commission will provide guidance to the Open Space Program regarding management.

Flagstaff Police Department: The Flagstaff Police Department will provide police assistance in partnership with the Coconino County Sheriff's Office, including monitoring the area for illegal camping and vehicles during the summer season as part of the Woods Watch program.

Flagstaff Fire Department: The Flagstaff Fire Department will provide fire and emergency assistance within legally-designated open space properties. Flagstaff Fire Department will also develop site-specific prescriptions to improve forest health and implement/oversee forest treatment projects.

Coconino National Forest: Observatory Mesa Natural Area shares multiple property lines with Coconino National Forest. The City and National Forest will coordinate to ensure effective management of motor vehicle access, boundary issues, forest treatments, and grazing.

Arizona State Parks: As the recipient of an Arizona State Parks Growing Smarter Grant, the City of Flagstaff conveyed a conservation easement to Arizona State Parks that allows for passive recreation and requires reasonable public access. Arizona State Parks must approve all infrastructure and improvement projects prior to each project. Additionally, the City is required to provide annual reports to Arizona State Parks explaining infrastructure and improvement projects and estimated visitation.

Coconino County Sheriff's Office: The Coconino County Sheriff's Office will provide police assistance in partnership with the Flagstaff Police Department, including monitoring the area for illegal camping and vehicles during the summer season as part of the Woods Watch program.

Local Organizations: City of Flagstaff Staff will coordinate with a myriad of local organizations to complete improvement projects on open space properties.

Volunteers: Volunteers will be utilized when appropriate. Tasks assigned to volunteers will be consistent with the skills and expertise of the individual and may include activities ranging from coordination of interpretive programs to trail maintenance.

Chapter 2: General Management Policies

This section of the plan outlines the general management policies that apply to all legally-designated open space properties managed by the Open Space Program. Specific policies related to each property are outlined in their respective chapters (Chapter 3: Picture Canyon Natural and Cultural Preserve; Chapter 4: Observatory Mesa Natural Area; Chapter 5: McMillan Mesa Natural Area; Chapter 6: Complementary Open Space; Chapter 7: Open Space Connectors).

2.1 Natural Resources

Effectively managing natural resources is one of the overall management goals for the Open Space Program. In most cases, the water, wildlife, vegetation, and geologic resources are important factors that supported acquisition and preservation of these properties. To ensure biological, physical, and visual resources are protected, the following management goals, policies, and planned management actions apply to all properties within the Open Space Program.

2.1.1 Water Resources

Management Goal: Legally-designated open space properties will be managed to maintain or improve surface and ground water quality, surface water flow, ground water levels, and overall watershed health, including any wetland and riparian zones.

Management Policies: The following policies apply to the management of water resources within legally-designated open space properties.

- Implement best management practices to protect, restore, and maintain surface and ground waters and their contributing watersheds.
- Prohibit activities and/or uses that diminish the quality, quantity, or duration of water flows.
- Manage forest resources within their natural range of variability, given their benefit to water resources (e.g. intercepting precipitation, stabilizing soils, and maintaining soil infiltration), and minimize erosion caused by run-off from forest restoration and stabilization projects.
- Maintain the City's right to surface and ground water resources present within the property and any additional lands that may be added to the area in the future.
- Partner with Stormwater to create and run a simple hydrologic model for wildfire-burned areas that include a floodplain or floodway as identified by the Federal Emergency Management Act (FEMA) to identify an estimate of post-fire impacts on flood potential.
- If an Open Space property is located within a large wildfire burn area, risk assessment and flood mitigation should be coordinated with the Coconino County Flood Control District and City of Flagstaff Stormwater Section.

- Follow post-fire flood mitigation practices outlined by the US Forest Service Burned Area Emergency Response (BAER), City of Flagstaff Stormwater Design Manual, and the Natural Resources Conservation Service (NRCS) best management practices.
- Partner with Stormwater to determine if slope stabilization needs to be inspected and how often.

Planned Management Actions: The following actions related to the management of water resources are planned.

- Work with partners to determine if sediment in earthen tanks and wildlife waters should be cleaned out when capacity is significantly diminished.
- Construct channel stabilization or retention/erosion prevention structures in drainages and along trails.
- Work with the Flagstaff Fire Department Wildland Fire Management Division to consider type (hand or mechanical) and extent (density, size, etc.) of any forest thinning operations in major drainages and utilize established Best Management Practices to ensure timing and impacts are managed and mitigated appropriately.
- Limit mechanical operations (including forest thinning operations) within the riparian zone to prevent impacts on riparian habitat.
- Post-fire management:
 - Consult with the Stormwater Section on post-fire flood and slope mitigation when appropriate.
 - Mitigate the potential post-fire flooding by actively re-vegetating, protecting steep slope soils³, and maintaining drainages using bank and channel bed stabilization techniques.
 - Improve the composition of soils after wildfires and implement soil retention practices to reduce erosion.

2.1.2 Forest and Grassland Health

General Considerations: Climate change creates a veritable administrative demand as it can result in ecosystem transitions. Average temperatures in Coconino County have been rising since about the mid-1980s⁴. Almost all years since 1985 have had average annual temperatures above the long-term average⁵. Minimum temperatures, which manifest as days not being as cold and as fewer cold days per year, are largely driving the upward trend in temperatures. These trends are projected to continue. Scenarios for Coconino County indicate that average temperatures could be 5° F above the current average (52.3° F) by 2050 and more than 10° F above the current average by the year 2100⁶. Although there are no clear trends in precipitation, the warmer temperatures will contribute to an overall drying trend. The implications of these changes for Flagstaff have created vulnerabilities in maintaining ecosystems and are discussed in climate

³ Using mulch, tackifier, or straw wattles.

⁴ Climate Profile, City of Flagstaff, 2018

⁵ *Ibid*

⁶ *Ibid*

vulnerability assessment processes. These climate trends are causing changes in vegetative cover, including an increase in invasive plants.

Invasive plants are aggressive spreaders and/or prolific reproducers that can adapt to a variety of conditions and have few natural controls in their new habitat. The animals, birds, insects, and fungi that controlled them in their native habitat are absent. They are difficult to control or eliminate once established. Invasive plant infestations reduce biodiversity by crowding out native vegetation, compete for resources, create monocultures, degrade wildlife habitat, and affect recreational use. Trails and other use impacts can result in the spread of invasive plants. The San Francisco Peaks Weed Management Area, Coconino National Forest⁷, and Coconino County have identified invasive species with potential to pose the greatest threat to forest resources in order to help prioritize treatments (Table 1).

Table 1: Invasive weeds of concern in Coconino County, as identified by the San Francisco Peaks Weed Management Area, Coconino National Forest, and Coconino County, with hyperlinks to information about effective treatment and eradication.

*Note: Species are listed in alphabetical order, not order of importance.

Common Name	Scientific Name	Treatment Notes
Barbwire Russian thistle	<i>Salsola paulsenii</i>	UC IPM
Bull Thistle	<i>Cirsium vulgare</i>	USFS FEIS
Camelthorn	<i>Alhagi maurorum</i>	WA NWCB
Canada thistle	<i>Cirsium arvense</i>	Purdue Bot
Cheatgrass/Downy brome	<i>Bromus tectorum</i>	Plants.USDA
Common purslane	<i>Portulaca oleracea</i>	UNCE
Dalmation toadflax	<i>Linaria dalmatica dalmatica</i>	UNCE
Diffuse knapweed	<i>Centaurea diffusa</i>	USFS FEIS
Dyer's Woad	<i>Isatis tinctoria</i>	CDFA
Eurasian water milfoil	<i>Myriophyllum spicatum</i>	CAL IPC
Field bindweed	<i>Convolvulus arvensis</i>	UNCE
Flannel mullein	<i>Verbascum thapsus</i>	UNCE
Goathead/Puncturevine	<i>Tribulus terrestris</i>	UC IPM
Halogeton	<i>Halogeton glomeratus</i>	Plants.USDA
Japanese brome/Field brome	<i>Bromus arvensis</i>	UNCE
Jointed goatgrass	<i>Aegilops cylindrica</i>	CDFA
Kochia	<i>Bassia scoparia</i>	USFS FHP
Leafy spurge	<i>Euphorbia esula</i>	NPS IPM
Malta starthistle	<i>Centaurea melitensis</i>	CAL IPC

⁷ As identified in the [“Final Environmental Impact Statement for the Integrated Treatment of Noxious or Invasive Weeds”](#), 2005.

Common Name (cont.)	Scientific Name (cont.)	Treatment Notes (cont.)
Mediterranean sage	<i>Salvia aethiopis</i>	UNCE
Musk thistle	<i>Carduus nutans</i>	UNCE
Oats	<i>Avena fatua</i>	UC IPM
Oxeye daisy	<i>Leucanthemum vulgare</i>	UNCE
Poison hemlock	<i>Conium maculatum</i>	CAL IPC
Prickly russian thistle	<i>Salsola tragus</i>	UC IPM
Red brome	<i>Bromus rubens</i>	Bugwood TNC
Ripgut brome	<i>Bromus diandrus rigidus</i>	UNCE
Russian knapweed	<i>Acroptilon repens</i>	USFS FEIS
Russian olive	<i>Elaeagnus angustifolia</i>	USFS FEIS
Salsify/Goatsbeard	<i>Tragopogon dubius</i>	USFS FEIS
Scotch thistle	<i>Onopordum acanthium</i>	UNCE
Siberian elm	<i>Ulmus pumila</i>	NPS IPM
Spotted knapweed	<i>Centaurea stoebe micranthos</i>	USFS FEIS
Spotted spurge	<i>Chamaesyce maculata</i>	UC IPM
Sulfer cinquefoil	<i>Potentilla recta</i>	KingCo NWCP
Tamarisk/saltcedar	<i>Tamarix ramosissima</i>	USFS FEIS
Teasel	<i>Dipsacus fullonum</i>	USFS FEIS
Tree of Heaven	<i>Ailanthus altissima</i>	NPS IPM
White horehound	<i>Marrubium vulgare</i>	CAL IPC
Whitetop/Hoary cress	<i>Cardaria draba</i>	CAL IPC
Yellow starthistle	<i>Centaurea solstitialis</i>	UNCE
Yellow/White sweetclover	<i>Melilotus officinalis</i>	UC IPM

Management Goal: Legally-designated open space properties will be actively managed to achieve forest and grassland structures that are resilient to wildfire and resistant to other disturbances while preserving the natural ecosystem, reducing invasive plant populations, and continuing to provide services to the surrounding community.

Management Policies: The following policies apply to the management and improvement of forest and grassland health within these properties.

- Partner with the Fire Department to ensure forest sustainability and resiliency through management that leads open space to more closely resemble conditions which existed prior to the interruption of historic fire regimes. This may include an uneven-age forest structure with clumps and groups of trees with some interlocking crowns and a multi-story structure, and interspersed openings and interspaces to improve native plant productivity and diversity.

- Manage public use to levels that do not materially degrade or alter the sites forest resources.
 - Public use will be consistent with reasonable public access.⁸
 - If public access restrictions are undertaken to ensure forest and vegetative health, Arizona State Parks and adjacent landowners will be notified.
- Reduce the risk of damage from insects and disease, unnaturally destructive wildfire, and subsequent post fire impacts such as flooding.
- Prevent any new noxious or invasive weed species from becoming established.
- Plan and implement forest health management activities including broadcast burning operations⁹ in partnership with the Flagstaff Fire Department Wildland Fire Management division.
- Use only the approved City of Flagstaff seed specifications or approved modification by the Stormwater Section for revegetation in wildfire-burned areas.
- Prioritize treatment and eradication of noxious weed and invasive species and populations that pose the greatest threat to the biological diversity and watershed condition. When eradication is not possible, contain or control the spread of these species.
- Conduct forest treatment operations during conditions that protect soils and other ecological components and within major drainages to protect watershed resources.
- Consider sensitive plant species and area types when planning management activities to ensure populations and habitats are not negatively affected by projects.
- Consider and protect known and identified cultural, historical, and other sensitive resources during forest health management activities.
- Prohibit livestock grazing within the boundaries of open space properties.
- Prohibit personal firewood collection.
- Conduct forest management activities in accordance with:
 - Arizona State Parks Conservation Easement(s)
 - Arizona Antiquities Act (if thinning within established cultural sites)
 - Applicable sections of the Flagstaff Zoning Code, adopted by City Council November 1, 2011¹⁰
 - Goals identified in the National Cohesive Wildland Fire Management Strategy:
 - Resilient Landscapes
 - Fire Adapted Communities
 - Wildfire Response
 - The Greater Flagstaff Community Wildfire Protection Plan (CWPP), adopted by City Council December 2004
 - The Governor's Statewide Strategy for Restoring Arizona's Forests, June 2007

⁸ Outlined by the Arizona State Parks Conservation Easements number 231202 (Picture Canyon) and 231303 (Observatory Mesa).

⁹ Broadcast burning operations must be planned, coordinated, and implemented by the Flagstaff Fire Department with advance approval from the Open Space Specialist, as required by the Arizona State Parks Conservation Easement.

¹⁰ Includes the Flagstaff Fire Department Firewise Process (Appendix 5.020)

- Flagstaff Wildland Urban Interface Fire Code, adopted by City Council, April 2008
- The General City-wide Forest Stewardship Plan, Sept 2009
- The Community Conversation on Sustainability, Healthy Forests – Healthy Communities, Nov 2010
- Site specific vegetation management plan(s), if required

Planned Management Actions: The following actions related to managing forest health are planned.

- Fire mitigation:
 - Consult with the Flagstaff Fire Department, archaeologists, and other technical experts, to develop site specific prescriptions that reduce the risk of catastrophic wildfire and move stand conditions toward the natural range of variability along a path of forest restoration.
 - Utilize broadcast burning as a tool to reduce surface fuel levels, accelerate recycling of nutrients, foster native grass and shrub development, and maintain forest structure, repeated approximately every 3 - 10 years to mimic natural conditions and the historic fire regime.
 - Continue fire management analysis and planning for activities such as presuppression, detection, suppression, prevention, and fuel treatment.
- Heterogeneity:
 - Improve forest health by increasing individual tree growth and vigor, increasing age and size class diversity, decreasing susceptibility to disease and insect mortality, and maintaining and improving wildlife habitat.
 - Reduce overall stand densities and move stand conditions toward a forest structure more representative of pre-settlement fire regimes.
 - Sustain a mosaic of vegetation densities (overstory and understory), size, age classes, and species composition across the landscape, including open forest and savanna conditions.
- Vegetation monitoring:
 - Survey the property for sensitive plant populations and area types, including riparian communities, so they can be more effectively managed.
 - Develop a monitoring plan for each property with specific monitoring protocols and indicators, including photography and surveys as analytical tools to determine the extent of vegetative changes resulting from management prescriptions and programs (Appendices E and M).
- Invasive plants:
 - Routinely monitor noxious and invasive plant populations within these properties and utilize Early Detection and Rapid Response techniques to implement eradication programs before they develop substantial populations.

- Newly germinated weeds will be eradicated by applying environmentally responsible herbicides and using other physical control methods.¹¹
 - Annual species will be treated in the spring soon after their emergence, whereas perennial species will be treated later in the growing season.
 - Mowing and early herbicide treatment will be timed to minimize seed production.
- Monitor and manage for invasive weeds in wildfire-burned areas until a native grass cover has re-established.
- Use biocontrol methods in coordination with experts that target non-native, invasive weed species only when the likelihood of success is high, and the anticipated ecological impacts are low.
- Coordinate with community partners to organize invasive weed removal volunteer events.
- Insects, parasites, and disease:
 - Reduce mistletoe infection levels to endemic levels, where possible.
 - Monitor insect and disease activities to evaluate the extent to which insect and disease control measures are needed.
- Other treatments:
 - Develop cutting guidelines for each harvesting project to ensure appropriate trees are targeted for removal to meet management goals.
 - Permit the establishment of natural regeneration in openings, so long as doing so does not disrupt natural site diversity, increase fire threat, or threaten/eliminate unique aspects of the property.
 - Implement native plant restoration programs or pilot projects to restore native plant communities and revegetate disturbed and/or treated areas.
- Consult with the City of Flagstaff Wildland Fire Unit to determine hazard tree mitigation and the need for prescriptive thinning or burning to help restore wildfire-burned areas.
- Communicate with and/or notify adjacent landowners prior to implementing forest health treatment projects.

2.1.3 Wildlife Resources

Management Goal: Legally-designated open space properties will be managed to maintain and enhance a diversity of habitats that support native wildlife species. Emphasis will be placed on the protection of rare habitat types and special-status species.

Management Policies: The following policies apply to the management of wildlife resources within these properties.

¹¹ Herbicides planned for use within the riparian area include: (1) Rodeo; (2) Habitat; (3) Garlon 3A; and (4) LI700 surfactant. Additional herbicides that could be used in the upland area of the project area are: (1) Round Up; (2) Milestone; and (3) Plateau.

Policies for Species of Concern:

- Prioritize actions to protect endangered, threatened, Species of Greatest Conservation Need (as identified by Arizona Game and Fish Department), or other special-status species in the development and implementation of resource management programs.
- Identify, protect, and improve habitat in areas that contain threatened, endangered, and sensitive species of animals.

Northern Goshawk:

- Protected under the Migratory Bird Treaty Act and is currently listed as a “Species of Concern”.
- If northern goshawk is identified on the property, efforts should be made to avoid impacts to breeding birds and maintain or enhance large tree density and canopy cover at nest sites. Recommendations for maintaining adequate stand conditions include¹²:
 - Keep the canopy cover greater than 50 percent in nest stands and PFAs.
 - Manage for uneven-age stand conditions for live trees and retain live reserve trees, snags, downed logs, and woody debris levels throughout ponderosa pine forest cover types.
 - Manage for old age trees such that as much old forest structure as possible is sustained over time across the landscape.
 - Sustain a mosaic of vegetation densities (overstory and understory), age classes, and species composition across the landscape.
 - Limit human activity in nesting areas during the breeding season (March 1 – September 30).
 - Manage the ground surface layer to maintain satisfactory soil conditions to minimize soil compaction and to maintain hydrologic/nutrient cycles.
 - Maintain a well-developed understory that includes snags.
 - High intensity crown fires are not acceptable in the PFA or nest areas.
- When possible, harvesting, hauling, and other loud activities within occupied Post-Fledgling Areas (PFAs)¹³ should not occur during the breeding season; March 1 to September 30.

Bald Eagle: The bald eagle is no longer listed under the Endangered Species Act (ESA) as Endangered (removed in 2007) but is protected under the Bald and Golden Eagle Protection Act.

Mexican Spotted Owl: The U.S. Fish and Wildlife Service (FWS) listed the Mexican Spotted Owl (MSO) as threatened under the Endangered Species Act (ESA) in 1993. The Recovery Plan for the Mexican spotted owl¹⁴ contains many recommendations to minimize effects to owls. If any questions arise regarding the owl, the City will contact the FWS for assistance. Protected Activity Centers (PACs) are 600-acre areas where the FWS and partners have determined MSO occur.

¹² Reynolds, Richard T.; Graham, Russell T.; Reiser, M. Hildegard; and others. 1992. Management recommendations for the northern goshawk in the southwestern United States. Gen. Tech. Rep. RM-217, Ft. Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station. 90 p.

¹³ The post-fledging area (PFA) is used by young goshawks until they are no longer dependent upon adult goshawks for food. A PFA is typically 600 acres in size, close to a goshawk nest, and functions to provide cover for young goshawks from predators.

¹⁴ US Fish and Wildlife Service. 2012. [Mexican Spotted Owl Recovery Plan](#). First Revision.

There are currently no known PACs on City lands, but there are PACs that abut lands within City limits and Observatory Mesa and Picture Canyon contain habitat, foraging, and dispersing MSO likely use.

- If surveys detect MSO on or adjacent to City lands, staff should work with the FWS to assess the potential for noise disturbance to nesting MSO on a case-specific basis.
 - If possible, conduct projects within or adjacent to PACs, or unsurveyed suitable habitat, outside the MSO breeding season (March 1 through August 31).
 - Limit human activity within and adjacent to PACs during the breeding season (March 1 through August 31).
- Forest management should maintain or enhance large tree density and canopy cover in suitable owl habitat. Recommendations for maintaining adequate stand conditions include:
 - Manage for uneven-age stand conditions for live trees and retain large/old trees, large snags (≥ 18 inches dbh), hardwood trees, downed logs, and coarse woody debris throughout ponderosa pine forest cover types.
 - Incorporate natural variation, such as irregular tree spacing and various stand/patch/group/clump sizes, into management prescriptions. Strive for heterogeneity both within and between stands.
 - Within ponderosa pine-Gambel oak and other forest types where hardwoods are a component of owl habitat, conduct management that retains, and promotes the growth of additional, large hardwoods.

Bat species:

- Retain snags and downed woody debris to provide roosting areas.
- Maintain a heterogeneous forest structure to ensure foraging supply for bats as they generally forage along forest edges, forest roads, trails, or natural openings.
- Ensure that there are clean, pooled, open bodies of fresh water as a water source for bats.

General Policies

- Manage public use to protect habitat and avoid adverse impacts to wildlife, which may involve temporary closures of portions of properties. Notify Arizona State Parks if public use is restricted for the purpose of ensuring wildlife protection.
- Enhance and develop opportunities for wildlife-oriented recreation activities that avoid or limit disturbance to wildlife.
- Uphold hunting protocols that prohibit hunting according to city code, while permitting hunting as directed by the Arizona Game and Fish Commission under ARS Title 17.
 - As of the 2018 Arizona Hunting Regulations, all hunting (including archery) is not permitted within Picture Canyon Natural and Cultural Preserve, McMillan Mesa Natural Area, and the Schultz Creek Trailhead due to their status as municipal parks.¹⁵

¹⁵ Hunting is prohibited within municipal parks and throughout the Flagstaff Urban Trail System according to City Code 8-11-001-0008.

- Firearm use is not permitted within City Limits at any time.
- Bow hunting is permitted between August and October in Observatory Mesa Natural Area as the Arizona Game and Fish Commission has exempted the property from the City's hunting prohibition due to potential user conflicts¹⁶.

Planned Management Actions: The following actions related to managing wildlife resources are planned.

- Develop and implement cooperative agreements with:
 - Arizona Game and Fish Department and U.S. Fish and Wildlife Service for the management of wildlife resources.
 - Northern Arizona University or other institutions to establish and maintain wildlife surveys and monitoring programs.
 - Non-governmental organizations to implement certain wildlife monitoring programs such as annual breeding bird surveys and elk counts.
- Wildlife inventories:
 - Survey the property for special-status and protected wildlife species to establish a baseline understanding of where these animals are located.
 - Inventory sensitive wildlife species before restoration activities begin and regularly complete wildlife surveys thereafter.
 - Inventory and evaluate wildlife habitat to establish a baseline by 2018, and resurvey as necessary.
- Habitat:
 - Use the best available resource data and technical expertise to identify habitat objectives and prepare implementation schedules for key habitats.
 - Improve vegetation conditions through seeding a mixture of species of grass, forbs, forage, and browse species desirable to wildlife.
 - Maintain near natural densities of live reserve trees, snags, spike tops, lightning scarred trees, downed logs, woody debris, and oaks.
 - Support the Mayor's Monarch Pledge by planting or seeding with native milkweed compatible with monarch butterflies where appropriate.
 - Improve forage conditions by using prescribed fire where environmental analysis shows beneficial effects and in line with approved burning plans.
 - Maintain, enhance, and/or restore wetlands for waterfowl, shorebirds, wading birds, songbirds, and amphibians.
- Design any new fencing or upgrades to wildlife-friendly specifications¹⁷ to minimize risk of animals becoming entangled and/or killed by fences, while promoting wildlife's ability to move freely across the landscape to access resources and make seasonal migrations.

¹⁶ Explanation in Arizona Game and Fish, pamphlet SB 1334

¹⁷ These design features were developed by Arizona Game and Fish. Where possible, acute angles should be avoided to minimize the potential for fleeing prey species to become cornered and entangled in fences. The top two fence wires must be spaced a minimum of 12 inches apart and the bottom wire must be smooth and raised to at least 18-20 inches off the ground.

2.2 Cultural and Historic Resources

Preserving cultural and historic resources is a primary criterion when considering whether to purchase an open space parcel. Northern Arizona and the Flagstaff area is rich in these fragile resources, and purchasing these parcels allows the City to permanently protect them. The City is required to work within various local, state, and federal policies regarding managing cultural and historic resources.

Management Goal: Legally-designated open space properties will be managed to preserve, protect, and interpret the cultural and historic resources present on the property.

Management Policies: The following policies apply to the management and protection of archaeological cultural resources within these properties.

- If an activity will impact cultural resources within designated archaeological site boundaries, an Arizona Antiquities Act permit, issued by the Arizona State Museum, is required.¹⁸
- If an activity involves State-level funding or a state agency (e.g. the Arizona Game and Fish Department), the lead agency must formally consult with the State Historic Preservation Office.¹⁹
- If an activity involves federal funding or a federal agency (e.g. National Park Service), the lead agency must formally consult with the State Historic Preservation Office.²⁰
- Facilities and improvements will be designed to avoid conflicts with known or potential historic and cultural resource sites. In instances where it is not feasible to completely avoid conflicts, historic and cultural resource sites will be mitigated in accordance with the recommendations of the Arizona State Museum²¹, State Historic Preservation Office (SHPO)²², and the Flagstaff Zoning Code.²³
- In instances where historical and cultural sites conflict with natural resources, historical and cultural sites take precedence in terms of maintenance and management activities.

¹⁸ Per ARS 41-841 et seq.

¹⁹ Per the State Historic Preservation Act

²⁰ Per the National Historic Preservation Act

²¹ Per ARS 41-841 et seq.

²² In the event that avoidance, preservation and protection of the Register Eligible Site or Sites cannot be accomplished, purchaser shall ensure a Data Recovery Plan is developed in consultation with and acceptable to, the Arizona State Museum and the State Historic Preservation Office, or their successor agencies, and the Data Recovery is implemented and completed prior to the Register Eligible Sites or Sites being affected. The artifacts and records recovered from the property shall be curated according to the Arizona State Museum (ASM) Conservation and Curation Standards as established in rules implementing the Arizona Antiquities Act. These conditions shall run with the land, and be binding on the purchaser's heirs, successors and assigns (Cultural Resources Review for Application to Purchase State Land 53-115750-00-000, p.3).

²³ The appropriate type and scope of measures varies depending on the cultural resource and impacts, and shall be recommended based on the professional expertise of the preparer and City of Flagstaff Code Title 10 – Heritage Preservation.

- Make boughs and herbaceous plant parts used for Native American religious and ceremonial purposes available under conditions that minimize restrictions, consistent with laws, regulations, and agreements with Tribes. This authorization does not include firewood.

Planned Management Actions: The following actions related to managing cultural and historic resources are planned.

- Monitor the condition of known historical and cultural sites within these properties.
- Consider interpreting cultural resources, including historic and pre-historic sites, as opportunities, management resources, and partnerships allow.

2.3 Public Use

Legally-designated open space properties are open to varying levels of public use. In general, these properties are managed to provide passive outdoor recreational and educational opportunities, including hiking, snow shoeing, wildlife watching, night sky viewing, and nature study. These properties are closed to overnight use and motorized travel is restricted in order to protect the unique conservation values.

This chapter outlines the management goal, policies, and actions identified for managing public access and roads, recreational use, easements and leases, education and research, and facilities within legally-designated open space properties.

2.3.1 Access Management

Management Goal: Legally-designated open space properties will be managed to ensure reasonable public access for non-motorized recreational activities aligning with the framework of the Arizona State Parks conservation easement and eliminate unauthorized motorized travel within these properties.

Management Policies: The following policies apply to managing public access to these properties and the roads within them.

- Provide reasonable public access to these properties.
- Encourage non-motorized access to these properties from the city and surrounding neighborhoods.
- Prohibit cross-country motorized travel within these properties, except as may be required for emergency activities/operations, forest treatments, essential administrative activities, infrastructure improvement projects, and maintenance.
- Eliminate illegal, unauthorized vehicle trespass.
- Prohibit the construction of new roads, except as necessary for timber harvesting operations or in accordance with the rights as defined by existing easements.

- Rehabilitate and close-out any temporary roads constructed to support any planned or emergency activities.
- Provide access to City departments for maintenance and improvements to existing infrastructure in an approach that minimizes impacts.

Planned Management Actions: The following actions related to managing public access and roads are planned.

- Install structures, such as gates, signs, or natural barriers (e.g. logs, boulders) to manage roads, limit/restrict illegal vehicle access, or decommission unauthorized, user-created roads.
- Designate appropriate vehicular access points and parking areas that will have minimal resource impacts.
- Investigate potential for additional access points and parking areas from surrounding neighborhoods to encourage visitors to utilize non-motorized forms of recreation.

2.3.2 Recreational Use

Management Goal: Legally-designated open space properties will be managed to provide a wide variety of developed and dispersed day-use recreational opportunities.

Management Policies: The following policies apply to the management of recreation opportunities within these properties.

- Eliminate illegal dumping, vandalism, and encampment.
- Prohibit camping and campfires.
- Prohibit fuelwood collection, except during City-sponsored collection events that require a permit.
- Prohibit recreational activities that result in damage to the properties or their historic/cultural resources.
- Manage public and recreational use to protect ecological and historical resources and avoid adverse impacts to ecological and historical resources, which may involve temporary closures of portions of these properties. Notify Arizona State Parks if recreational use or public access is restricted for the purpose of protecting ecological or historical resources.
- Maintain and enhance visual resource values by including visual quality objectives in resource planning and management activities.
- Coordinate trail management, use, and development with other resource management considerations.
- Maintain open communication with the local community, stakeholders, and adjacent landowners regarding management considerations, improvement projects, etc.

- Ensure reasonable accommodations for recreational services including trails according to Americans with Disabilities Act (ADA) regulations.²⁴

Planned Management Actions: The following actions related to managing recreational use are planned.

- Unauthorized trails:
 - Survey properties in partnership with trail user groups to locate user-created trails.
 - Assess existing trails and roads for inclusion into the designated trail system.
 - Revegetate and/or naturalize unauthorized, user-created trails not included in the designated trail system.
 - Install trail counters along established trails to obtain data associated with trail use and trends in order to prioritize management and maintenance efforts.
- New infrastructure:
 - Construct and maintain a variety of trails that include foot, horse, and bicycle trails of varying levels.
 - Coordinate with Coconino County Parks and Recreation Department, Coconino National Forest, Arizona Trail Association, and adjacent landowners to connect trails within the Preserve to regional trail networks when it is mutually beneficial, provides better public service, and development is compatible with other resource management constraints.
- Maintenance:
 - Develop trail maintenance standards and schedules for each trail type.
 - Establish partnerships to maintain and manage trails.
 - Promote and expand the Adopt-a-FUTS Program to encourage volunteer assistance with trail maintenance, in partnership with the City of Flagstaff Community Stewards Program.
 - Coordinate at least one volunteer event at an open space property each summer.
- Safety:
 - Work with Flagstaff Police Department and Coconino County Sheriff's Office to provide law enforcement at a level that protects human health and safety, property, and resource values in coordination with appropriate law enforcement agencies.
 - Help prevent occupancy trespass and other law violations by regularly patrolling the property.
 - Advertise and maintain a 24-hour contact point for the public to report suspected violations and provide feedback to the person making the report.
 - Enforce applicable leash laws and regulations within the Preserve.²⁵

²⁴ ADA Title III Regulation 28 CFR Part 36, Sec.36.302(a) states that "a public accommodation shall make reasonable modifications in policies, practices, or procedures, when the modifications are necessary to afford goods, services, facilities, privileges, advantages, or accommodations to individuals with disabilities, unless the public accommodation can demonstrate that making the modifications would fundamentally alter the nature of the goods, services, facilities, privileges, advantages, or accommodations."

²⁵ Flagstaff City Code, Section 6-02-001-0001

- Communication:
 - Provide timely public information about closures, fire danger, and other important information to the public.
 - Share annual stewardship reports with stakeholders and the general public electronically by posting copies online.
 - Provide information to the public about how to access legally-designated open space properties, their importance, and recreational opportunities.

2.3.3 Easements and Leases

Management Goal: Manage legally-designated open space properties for non-consumptive, sustainable uses.

Management Policies: The following policies apply to the managing easements and leases within these properties.

- Grantees and leasees must operate with the context of the Arizona State Park's Conservation Easements (Appendix B, Appendix E) and the Legally Designated Open Space management plan.
- Upon request for renewal, the City of Flagstaff City Council will review non-perpetual easements and leases.
- To renew easements and leases, grantees and leasees are required to pay an updated fee (50% of the current property value) with a \$10,000 restoration deposit.
- City Water Services Department are to retain access for maintenance and improvements to their water infrastructure.

Planned Management Actions: The following actions related to managing easements and leases are planned.

- Review and assess easements periodically.
- Ensure that ground-disturbing activities associated with easements and leases are coordinated with the Open Space Program and implement Best Management Practices to preserve cultural resources, restore vegetation, and prevent the establishment of noxious, invasive weeds.

2.3.4 Education and Research

Management Goal: Legally-designated open space properties will be managed to provide diverse educational and research opportunities.

Management Policies: The following policies apply to the management of educational and research opportunities within these properties.

- Promote the use of legally-designated open space properties for educational and research activities to local organizations and school groups.

- Require entities to submit an Open Space Research Permit²⁶ to the Open Space Specialist for approval in order to conduct educational and research activities within legally-designated open space properties.
 - Research projects are acceptable uses of the Preserve if they are non-destructive in nature, do not impact cultural sites, and do not conflict with the conservation values or management goals or objectives for the property.
- Educate visitors about ecological values of the property.
- Manage educational or research activities to protect conservation values and avoid adverse impacts to ecological, cultural, or historical resources, which may involve temporary closures of portions of these properties. Notify Arizona State Parks if public use is restricted for the purpose of protecting ecological values.

Planned Management Actions: The following actions related to managing education and research opportunities are planned.

- Partner with local organizations to develop and provide educational and interpretive activities and materials (e.g. interpretive signs, brochures) about wildlife, natural resources, and ecology.
- Present age-appropriate workshops and educational programs for youth.
- Partner with local schools and organizations to sponsor educational programs.
- Establish an MOU with Northern Arizona University and other educational institutions for monitoring and research efforts within these properties.
- Monitor and document educational and research activities occurring within legally-designated open space properties.
- Coordinate with schools to provide restoration and monitoring activities that are educational in nature.

2.3.5 Facility Development

Management Goal: Legally-designated open space properties will be managed to provide facilities that enhance visitors' experiences according to the requirements of the Arizona State Parks conservation easement and available funding.

Management Policies: The following policies apply to the construction of new facilities and site improvements within legally-designated open space properties.

- Minimize impacts to ecological, cultural, and visual resources and dark sky quality during construction of new facilities and site improvement projects.
 - Consider utilizing previously disturbed areas for new facilities.
- Limit development to not exceed 10% (or up to 20 acres) of the property.
- Prohibit any projects that would seriously or negatively affect the property's conservation and open space values.

²⁶ <https://flagstaff.az.gov/DocumentCenter/View/57675>

- Design and install customary signs for interpretive and recreational purposes, such as “no trespassing” signs, “no motorized vehicles” signs, access point markers, and trail markers.
 - Require advanced written approval from the Open Space Specialist for any outside entity to install signage on the property.
 - Require signs to include the following characteristics:
 - FUTS color scheme
 - City of Flagstaff and Arizona State Parks logos
 - Anti-graffiti coating
 - UV-protective coating
- Obtain advanced written approval from Arizona State Parks for all facility construction and site improvement projects, as required by the Arizona State Parks conservation easement.

Planned Management Actions: The following actions related to developing facilities within legally-designated open space properties are planned.

- Design and install additional kiosks and signage to provide information regarding land ownership, rules and regulations, etc.
- Develop educational signage and electronically accessible information that interprets the resources, uses, and management of these properties.
- Design and install boundary signs along the perimeter of the property.
- Remove any trash and/or debris piles resulting from illegal dumping.
- Remove outdated and unnecessary signage throughout the area.

Chapter 3: Picture Canyon Natural and Cultural Preserve

3.1 Property Overview

Picture Canyon Natural and Cultural Preserve is a 478-acre legally-designated open space property on the east side of Flagstaff behind the Wildcat Wastewater Treatment Plant and Coconino County Public Works Yard (Figure 1). The Preserve is bound by development—industrial uses on the south and west and primarily single-family homes to the east and north. The Kinder Morgan Gas Plant owns a 40-acre inholding along the southern boundary.

The American Land Title Association (ALTA) land survey²⁷ (Appendix A) identified the legal description for the Preserve as follows: government lots 1 thru 4, the south half of the north half, and portions of the southwest quarter and the southeast quarter of Section 4, Township 21 North, Range 8 East, of the Gila and Salt River Meridian, Coconino County, Arizona.

Efforts to preserve the property began soon after it was identified as a priority area in the 1998 Flagstaff Area Open Spaces and Greenways Plan²⁸. Community groups began hosting volunteer events focused on removing trash, debris, and invasive weeds from the area in 2001. In 2005, representatives from organizations and agencies formed the Picture Canyon Working Group (PCWG), dedicated to preserving the property. Also in 2005, the PCWG helped organize the annual Make a Difference Day event, drawing hundreds of volunteers to remove tons of trash and debris from the Preserve. In 2008, the PCWG successfully listed the inner canyon on the National Register of Historic Places, providing an additional layer of protection.

Prior to the City's acquisition in 2012, the property was owned by the Arizona State Land Department and operated as State Trust Land.²⁹ In 1996, the Arizona State Legislature passed HB 2555, the Arizona Preserve Initiative, designed to encourage the preservation of select parcels of State Trust Land in and around urban areas as open space for future generations.

In 2012, the City purchased 478.8 acres from the State Land Department for \$4,977,132.30 under the Arizona Preserve Initiative with \$2,389,000 from an Arizona State Parks Growing Smarter grant and a \$2,588,132.30 match from the 2004 voter-approved open space bond. As part of the acquisition process, a conservation easement was granted to Arizona State Parks, outlining improvement and development limitations associated with the Preserve (Appendix B) to ensure the property is retained in the condition reflected in the Baseline Documentation in the grant application and restricts the use of the property to passive recreational uses. The City of Flagstaff Open Space Program is required to submit annual reports to Arizona State Parks outlining all improvement projects (Appendix B). In 2016, the City of Flagstaff rezoned the

²⁷ An ALTA Land Title Survey is a comprehensive boundary survey that adheres to the national standards adopted by American Land Title Association and National Society of Professional Surveyors.

²⁸ <https://www.flagstaff.az.gov/DocumentCenter/View/7959/Open-Space--Greenways-Plan?bidId=>

²⁹ Arizona State Trust lands are held in trust and managed for the sole purpose of generating revenues for the 13 State Trust land beneficiaries, the largest of which is Arizona's K-12 education system.

entire Preserve from Rural Residential to Public Open Space and annexed a county inholding within the Preserve into City Limits.³⁰

³⁰ Flagstaff City Ordinance No. 2016-19 (rezone) and Ordinance No. 2016-18 (annex)

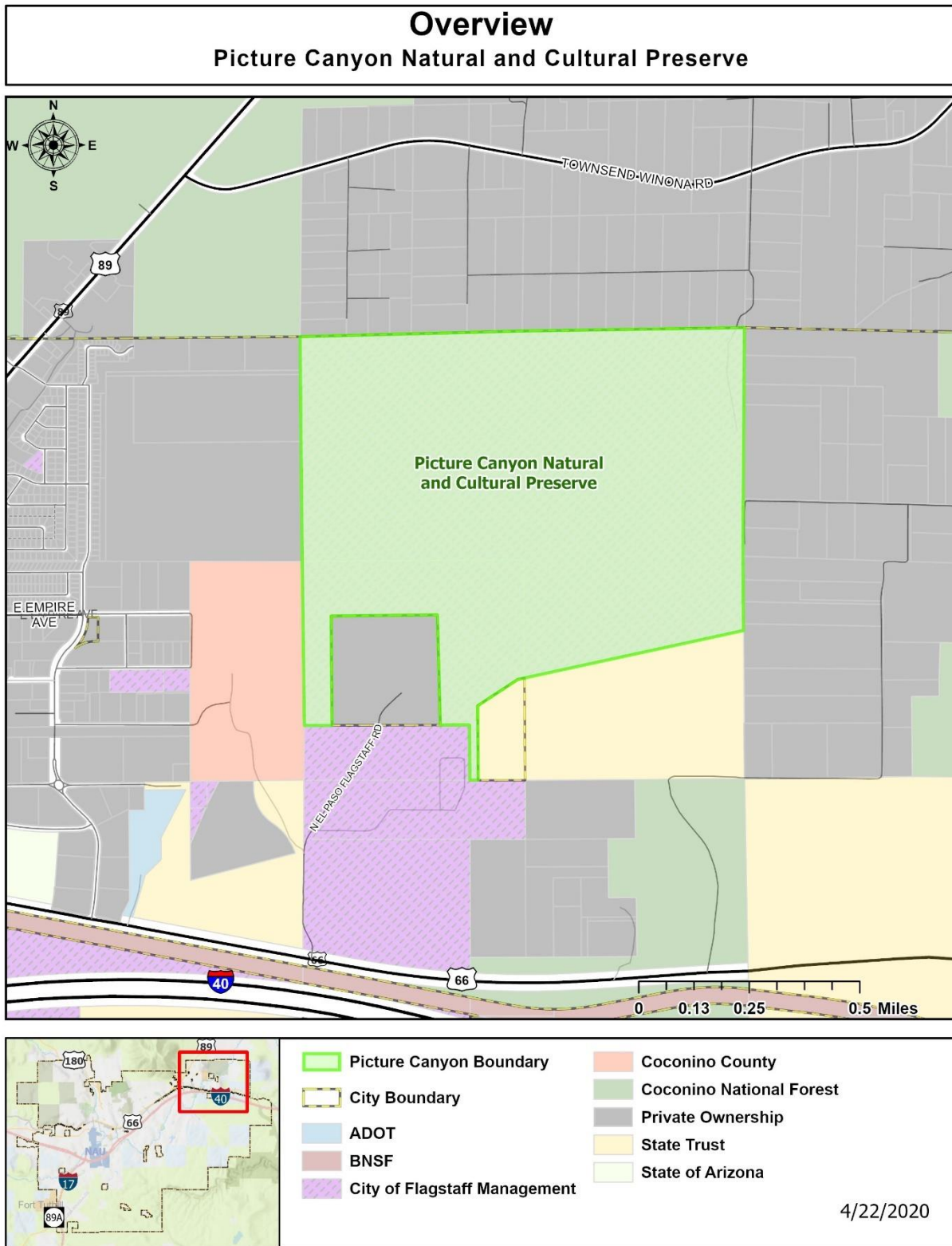


Figure 1: Land management surrounding Picture Canyon Natural and Cultural Preserve.

3.2 Natural Resources

Central to the overall management of Picture Canyon is the effective management of its natural resources. The water, wildlife, vegetation, and geologic resources are important factors that supported the acquisition of the property and the establishment of the Preserve, and subsequently need to be managed and maintained appropriately to ensure they are not damaged. To ensure the protection of the biological, physical, and visual resources, specific management objectives, policies, and actions have been identified.

3.2.1 Water Resources

Summary of Current Conditions: The Rio de Flag flows northeasterly through Picture Canyon, providing nearly five acres of healthy riparian and wetland habitat for plants and animals as well as important ecological services, including filtering contaminants, storing water, and providing riparian habitat. Only 1% of the land cover in Coconino County is designated as riparian habitat, making the Rio de Flag corridor through Picture Canyon a regionally important habitat for birds and wildlife.

Between 2005 and 2016, the City of Flagstaff received grant funding from the Arizona Water Protection Fund to complete a series of restoration projects to improve riparian habitat and function of the floodplain. These projects were completed in multiple phases and included realigning the natural meander to the stream channel by creating a wide, shallow channel that allows water to flow into the floodplain during high flow events. Additionally, volunteers removed a substantial number of invasive weeds from the floodplain area and replanted native riparian vegetation, including willows, grasses, and wildflowers. A 5-foot-deep pond was also constructed to encourage water retention and groundwater recharge while providing valuable wetland habitat for the riparian-obligate species that visit the Preserve during some portion of their life cycle.

In 2010, the City of Flagstaff and Arizona Game and Fish Commission signed the Bow and Arrow Park Agreement, a 20-year water right agreement that ensures an ongoing supply of an hourly average of 200 gallons per minute of Class A reclaimed wastewater to be released into three riparian sites along the Rio de Flag: Frances Short Pond, Rio de Flag Wetlands, and Picture Canyon³¹. This agreement ensures that Picture Canyon has a year-round supply of water until the agreement expires in 2030.

Given that the Rio de Flag flows through the Preserve, there are designated floodplain and floodway areas within the property (Figure 2). These portions of the property have Rural Floodplain overlay zoning, which limits what activities are permitted in the area³². These areas are monitored and regulated by the Army Corps of Engineers, Stormwater Section, or Federal

³¹ <https://www.flagstaff.az.gov/DocumentCenter/View/63880/August-2008-Bow-and-Arrow-Park-Agreement>

³² Activities permitted in Rural Floodplain overlay zoning category are outlined in Section 10-50.90.040 of the Flagstaff Zoning Code.

Emergency Management Agency given the Rio's designation as a "navigable water of the United States" and subsequently, permits may be required for projects requiring any type of ground disturbance, especially if those projects might impact the function and/or flow of the floodplain.

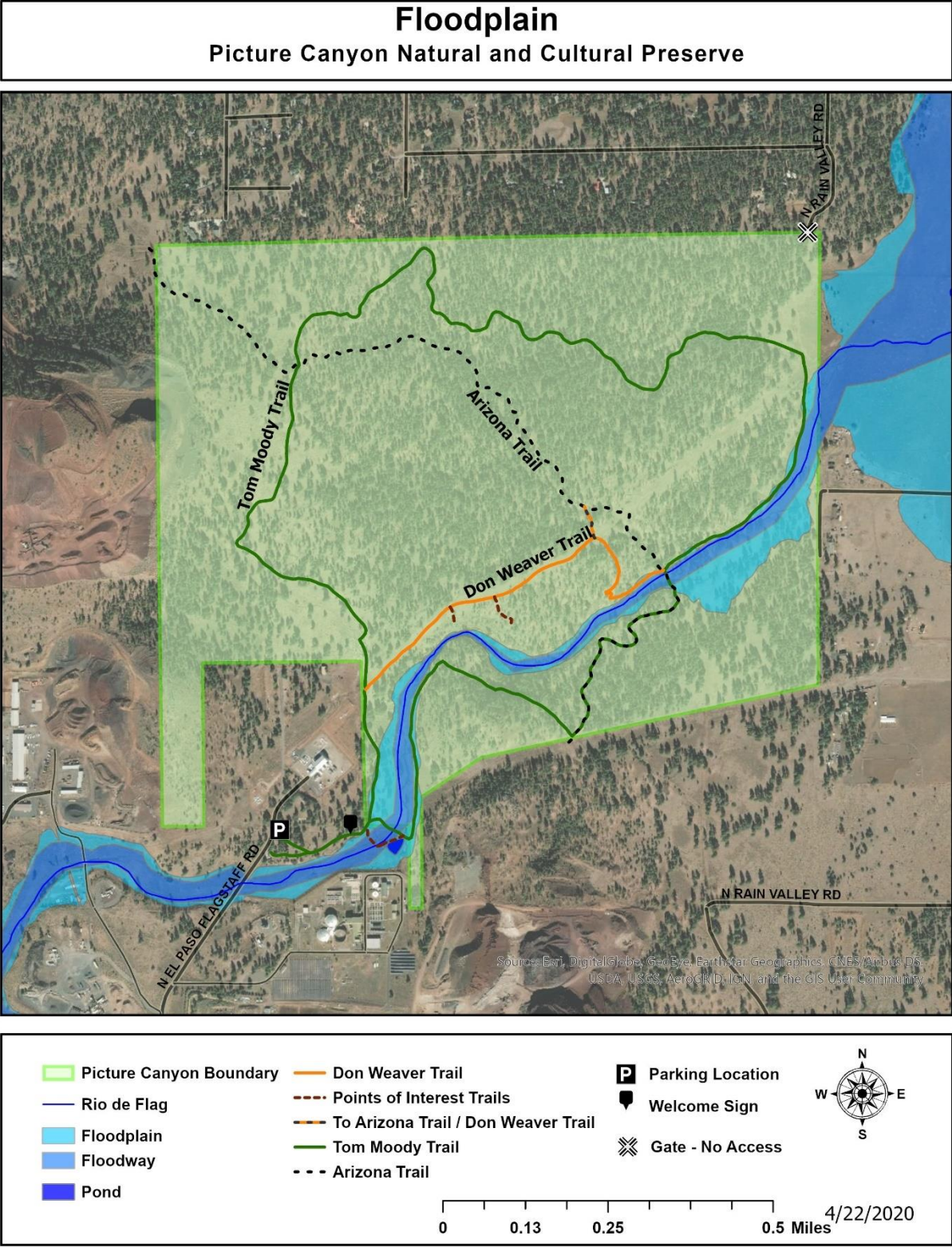
Management Goal: The Preserve will be managed to maintain or improve surface and ground water quality, surface water flow, and ground water levels within the Rio de Flag to sustain watershed health, including the wetlands and riparian zone.

Management Policies: In addition to the general management policies guiding water resource management (outlined in Chapter 2.1.1), the following policies apply to the management of water resources within Picture Canyon Natural and Cultural Preserve.

- Manage water elevations and vegetation within the pond to sustain a healthy habitat mix of open water with a vegetated margin. Prolonged periods of low water in the pond will allow emergent vegetation to invade the deeper portions of the pond and degrade open water habitat.
- Consult with Stormwater Section on projects requiring ground disturbance within the designated floodplain or floodway to determine if any permits are required.

Planned Management Actions: In addition to the general management actions guiding water resource management (outlined in Chapter 2.1.1), the following actions resources are planned.

- Remove irrigation line to completed revegetation project.
- Monitor vegetation surrounding the deep-water pond.
 - Mechanical manipulation of the vegetation may be required if cattails begin to invade the pond during periods of prolonged low water levels.
- Work with the community to investigate whether to keep or remove one culvert on the far east side of the Preserve.
- Cooperate with the Arizona Department of Environmental Quality (ADEQ) and City of Flagstaff Utilities Department to monitor surface and ground water quality within the Preserve.
- Investigate potential for a formal agreement with City of Flagstaff Water Services Director on behalf of the City of Flagstaff to ensure a perpetual supply of reclaimed water into the Rio de Flag stream channel through the Preserve.



3.2.2 Forest and Grassland Health

Summary of Current Conditions: The Preserve is in the transition zone between Pinyon-Juniper woodland and Ponderosa Pine Forest and contains ephemeral streams. The plant biodiversity within the Preserve has been negatively impacted as a result of past management practices including over-logging, fire suppression, overgrazing, and channelizing of the Rio de Flag. These practices have also resulted in overstocked stands and increased canopy cover, which in turn reduces the biodiversity of understory species. Efforts to restore native plant communities and structure are ongoing.

The overstory vegetation is dominated by ponderosa pine (*Pinus ponderosa*). There are indicators spanning across the Preserve in the ponderosa pine-dominated regions suggesting some forest health issues, including increased trees per acre, insect damage, chlorotic foliage, brows damage, and tree mortality. Historical data shows that trees-per-acre increased from 22 in 1876 to over 1,200 in 1992.³³ The goal is to achieve and maintain densities within the natural range of variability for tree size classes and increase species diversity while maintaining reduced risk to loss by fire. This influx of small diameter trees from several dominant cohorts has also produced a continuous canopy cover at the time of plan adoption, greatly affecting understory plant diversity and water run-off. In 1876, 19% of the surface area was under pine canopy, with the balance (81%) representing grassy openings. In 1992, pine canopy covered 93% of the area with only 7% left in grassy openings. Other overstory vegetation in the transitional zone includes Gambel oak (*Quercus gambelii*), pinyon pine (*Pinus edulis*), Arizona walnut (*Juglans major*), and many juniper species, including Alligator, one seed, and Rocky Mountain (*Juniperus deppeana*, *Juniperus monosperma*, and *Juniperus scopulorum*, respectively).

The understory shrubs and grasses are primarily comprised of Arizona rose (*Rose arizonica*), Arizona fescue (*Festuca arizonica*), mountain muhly (*Muhlenbergia montana*), western wheat grass (*Agropyron smithii*), blue grama (*Bouteloua gracilis*), squirreltail (*Elymus elymoides*), silver lupine (*Lupinus argenteus*), Rocky Mountain iris (*Iris missouriensis*), foxglove (*Penstemon digitalis*), Indian paintbrush (*Castilleja spp.*), buckwheat (*Fagopyrum esculentum*), wax currant (*Ribes cereum*), and Wheeler's thistle (*Cirsium wheeleri*). Meadows are scattered through the Preserve as the soil is primarily composed of coarse cinders, which are unfavorable to the establishment of dense grasslands. Along the shaded cliffs are colonies of Arizona walnut (*Juglans major*), Arizona grape (*Vitis arizonica*), banana yucca (*Yucca baccata*), apache plume (*Fallugia paradoxa*), wolfberry (*Lycium barbarum*), and cliff rose (*Purshia mexicana*).

Land management agencies have identified 8 special-status plant species within a 5-mile radius of the Preserve (see Table 2). These species may or may not be present within the Preserve, but special consideration should be given to ensure projects do not impact these species.

³³ Covington, et al., 1997. Ecosystem Restoration and Management: Scientific Principles and Concepts.

Table 2: Special status plant species identified within a 5-mile radius of Picture Canyon.

Common Name	Scientific Name	Identification Agency
Cinder Phacelia	<i>Phacelia serrata</i>	FWS
Clustered Leather-flower	<i>Clematis hirsutissima</i>	USFS
Flagstaff False Pennyroyal	<i>Hedeoma diffusa</i>	USFS, State
Green Death Camas	<i>Zigadenus virescens</i>	State
Mogollon Columbine	<i>Aquilegia desertorum</i>	State
Rock Fleabane	<i>Erigeron scopulinus</i>	USFS
Rusby's Milkvetch	<i>Astragalus rusbyi</i>	USFS
Sunset Crater Beardtongue	<i>Penstemon clutei</i>	FWS, USFS, State

There are multiple exotic and invasive plant species within the Preserve (Table 3). In 2009, Natural Channel Design developed a Noxious Weed Management Plan for the riparian area within the Preserve³⁴ as part of the Rio de Flag restoration project. The identified species threaten native vegetative communities at varying levels and therefore, only those species that present the greatest risk have been targeted for treatment.

Table 3: Exotic invasive plant species identified within Picture Canyon in 2013.

Common Name	Scientific Name
Bull thistle	<i>Cirsium vulgare</i>
Cheatgrass	<i>Bromus tectorum</i>
Cocklebur	<i>Xanthium strumarium</i>
Common mullein	<i>Verbascum thapsus</i>
Dalmatian toadflax	<i>Linaria dalmatica</i>
Diffuse knapweed	<i>Centaurea diffusa</i>
Field bindweed	<i>Convolvulus arvensis</i>
Horehound	<i>Marrubium vulgare</i>
Kochia	<i>Bassia scoparia</i>
Pigweed	<i>Amaranthus palmeri</i>
Poison hemlock	<i>Conium maculatum</i>
Prickly lettuce	<i>Lactuca serriola</i>
Redstem filaree	<i>Erodium cicutarium</i>
Russian olive	<i>Eleagnus angustifolia</i>
prickly Russian thistle	<i>Salsola tragus*</i>
slender Russian thistle	<i>Salsola collina*</i>
Scotch cotton thistle	<i>Onopordum acanthium</i>
Siberian elm	<i>Ulmus pumila</i>
Yellow salsify	<i>Tragopogon dubius</i>
Yellow star-thistle	<i>Centaurea solstitialis</i>
Yellow sweetclover	<i>Melilotus officinalis</i>

*Both *Salsola tragus* and *Salsola collina* were found on the property but will be managed identically.

³⁴ <https://www.flagstaff.az.gov/DocumentCenter/View/63881/Picture-Canyon-Invasive-Weed-Management-Plan>

In 2017, Campbell Global prepared a Picture Canyon Forest Stewardship Plan for the City of Flagstaff and the Flagstaff Fire Department Wildland Fire Management Division.³⁵ This Plan outlines recommendations for the management of multiple resources including the following: aesthetic quality, cultural sites, biological diversity, fire, fish and wildlife, forest health, invasive species, recreation, water, and wetlands.

Management Goal: The Preserve will be actively managed to achieve a native forest, grassland, and riparian plant structure that is resistant and resilient to wildfire, invasive plant populations, or other disturbances and continues to provide ecosystem services to the surrounding community.

Management Policies: In addition to the general management policies associated with managing forest and grassland health (outlined in Chapter 2.1.2), the following policies apply.

- Reduce impacts to established cultural sites by hand-thinning trees within designated cultural site boundaries.
- Mitigate any damage to cultural resources by consulting with archaeologists prior to beginning any forest treatment operations.
- Plan, coordinate, and implement broadcast burning operations with Flagstaff Fire Department crews upon consultation with archaeologists.

Planned Management Actions: In addition to the general management policies associated with managing forest and grassland health (outlined in Chapter 2.1.2), the following policies apply.

- Treat invasive weeds within the Preserve on a biannual basis to reduce populations and the risk of spread.
- Design and install educational signs outlining the ethnobotanical and ecological importance of specific plants.
- Maintain consultation with representatives of affiliated tribes regarding restoration efforts.
- Physically block off access to sensitive riparian areas to limit degradation of this rare habitat type.
- Coordinate with Flagstaff Fire Department to develop prescriptions to begin timber cutting operations.

3.2.3 Wildlife Resources

Summary of Current Conditions: The Preserve contains a variety of geologic and vegetative characteristics, providing a unique diversity of wildlife habitats. A 20-year water supply from the Wildcat Wastewater Treatment Plant creates important stream and wetland habitat for riparian-obligate breeding and migratory birds and waterfowl. Riparian habitats are critically important

³⁵ <https://www.flagstaff.az.gov/DocumentCenter/View/63882/Picture-Canyon-Stewardship-Plan-9302017>

for wildlife species in the Southwest and comprise less than one percent of all land cover in Coconino County. Current wetland and riparian conditions in the Rio de Flag within Picture Canyon attract over 130 bird species³⁶, including raptors, warblers, flycatchers, sparrows, hummingbirds, waterfowl, shorebirds, wading birds, and migratory songbirds. Birds are especially common during spring and fall migrations. Subsequently, Picture Canyon has been designated as a Watchable Wildlife site with the Arizona Watchable Wildlife Experience and a Bird Sanctuary with the Northern Arizona Audubon Society.

The wetland and riparian conditions in Picture Canyon provide foraging habitat and hiding cover for waterfowl, shorebirds, and songbirds. These habitats have been improved via on-going vegetation restoration efforts, including restoring riparian plants and structural complexity. Many small mammals and mesocarnivores also utilize riparian habitats. Oak woodlands and mature stands of ponderosa pine forest support substantial elk and mule deer use. The numerous decaying ponderosa pine snags in the canyon attract foraging peregrine falcons, wintering bald eagles, as well as an unusually high diversity of woodpecker species. Standing dead snags provide critical habitat for cavity nesting birds. Basalt cliffs support habitat for bats, cliff-dwelling passerines, and reptiles. The uplands in Picture Canyon are also valuable to wildlife, especially the riparian zone, oak woodlands, and old growth stands of ponderosa pine forest.

Picture Canyon and surrounding lands provide habitat for seven sensitive species (Table 4). These species may or may not occur within the Preserve and the City will need to work with partners to survey wildlife on the Property to determine if the following management suggestions apply.

Table 4: Special-status wildlife species identified within a 5-mile radius of Picture Canyon.

Common Name	Scientific Name	Identification Agency
Allen's lappet-browed bat	<i>Idionycteris phyllotis</i>	FWS, USFS, BLM
American peregrine falcon	<i>Falco peregrinus anatum</i>	FWS, USFS, BLM, State
Arizona myotis	<i>Myotis occultus</i>	FWS, BLM
Bald eagle	<i>Haliaeetus leucocephalus</i>	FWS, USFS, BLM, State
Greater western bonneted bat	<i>Eumops perotis californicus</i>	FWS
Mexican spotted owl	<i>Strix occidentalis</i>	FWS, State
Northern goshawk	<i>Accipiter gentilis</i>	FWS, USFS, BLM, State

Management Goal: The Preserve will be managed to maintain and enhance a diversity of habitats that support native wildlife species, emphasizing the protection of rare habitat types and special-status species.

Management Policies: General policies for managing wildlife resources within the Preserve are outlined in Chapter 2.1.3.

³⁶ As identified by Northern Arizona Audubon Society.

Planned Management Actions: In addition to the general management actions planned for managing wildlife resources outlined in Chapter 2.1.3, the following actions are planned at the Preserve.

- Post “No Hunting” signs at primary entrance points and other key locations within the Preserve.
- Enhance the Preserve as an Arizona Watchable Wildlife Experience (AWWE) site including expanding wildlife viewing opportunities and facilities.
- Inventory endangered and sensitive species present in the Preserve.
- Re-establish and maintain cottonwood/willow and rush/sedge vegetation communities along the stream channel to increase habitat availability for birds.

3.3 Cultural and Historic Resources

Summary of Current Conditions: The Northern Sinagua occupied the Flagstaff region, including Picture Canyon, between A.D. 600 and A.D. 1400. Prehistoric peoples like the Northern Sinagua were likely attracted to Picture Canyon because of the resources within the area, including reliable water, habitable caves and rock shelters, usable plant species, and proximity to arable land. Subsequently, the Preserve has extensive cultural and historic resources, including petroglyphs, pottery sherds, habitation sites, and plants with religious or ceremonial significance for Tribes. There are 29 cultural sites listed with the Arizona State Museum, including pre-historic and historic sites. Some of these have been listed on the National Register of Historic Places, while others are eligible for listing and therefore must be protected to the same extent.

On January 10, 2008, the Picture Canyon Archaeological Site,³⁷ which encompasses the entire inner canyon area, was placed on the National Register of Historic Places given the significant cultural resources within the area, including pit houses, pottery sherds, and petroglyphs.³⁸

Although possible Pre-Elden Phase (pre- A.D. 1150) rock art has been identified, the Northern Sinagua left the most visible evidence within the Preserve. Over 126 petroglyph panels, depicting 736 elements of archers, turtles, deer, elk, bighorn sheep, water birds, and geometric designs are carved into the canyon walls and boulders. The density of petroglyphs gave Picture Canyon its modern name. Archaeologists have cited it as the type site (or first scientifically documented example) for Northern Sinagua rock art. Subsequently, archaeologists continue to conduct research within the Preserve to learn more about the Northern Sinagua culture.

³⁷ AZ I:14:346[ASM] and NA17897

³⁸ In 1978, Donald E. Weaver, Jr., archaeologist and rock art expert, assigned a single site number (NA17897) to the canyon’s extensive petroglyphs; however, by today’s standards, the features would be considered loci within a single site, given their proximity and continuity of cultural material. Therefore, in 1998 the Arizona State Museum applied the site number AZ I:14:346 (ASM) to the entire site, including petroglyphs, habitation features, and burial features (National Register of Historic Places, Picture Canyon Archeological Site, Flagstaff, Coconino County, AZ, National Register #07001349).

In addition to the Sinagua petroglyphs, Picture Canyon contains additional petroglyphs that may be of non-Sinagua origin, such as two unusually tall (40 to 46 cm) anthropomorphic figures located in Loci A and F. These figures do not resemble the rock art typically seen at Sinagua sites and their heavy weathering suggest greater age than the late Sinagua elements.

Aside from petroglyphs, there are Sinagua cave dwellings below the canyon rim, pithouse and rock structures on the slopes above the rim, and pottery sherds. Initial excavations were conducted in 1919 and 1921 by Harold S. Colton, founder of the Museum of Northern Arizona. These ruins and features were described by Colton in a 1932 *Bureau of American Archaeology Bulletin*. Colton excavated burials and stone houses during his initial visits to Picture Canyon. An important dwelling, Porcupine Cave, had three rooms, a plastered wall, and a door when Colton first visited in 1919. It has since been disturbed by looters and a low mound of rubble is all that remains of the internal walls.

The primary ceramic group found at Picture Canyon is Alameda Brown Ware, an undecorated pottery made from volcanic clays using a technique called paddle-and-anvil. The presence of other ceramics (Tusayan Gray Ware, San Francisco Mountain Gray Ware, Little Colorado White Ware, and Tusayan White Ware) reflects trade between the Northern Sinagua and neighboring groups such as the Cohonina to the west and Kayenta to the north.

Don Weaver, Jr. and Rupestrian Cyberservices completed a summary inventory of the petroglyphs that identified a minimum of 126 rock-art panels and 736 elements. Prior to that, Harold S. Colton assembled resources in a table form. In 2012, Northland Research surveyed the entire Preserve for cultural resources, resulting in discovery of several new archaeological features.³⁹

The City of Flagstaff participates in the Arizona State Parks Site Stewards Program, a volunteer program dedicated to protecting and preserving cultural resources and heritage sites. Volunteers monitor the cultural sites, including the inner canyon, petroglyph sites, and pithouse regularly. The Site Steward is responsible for documenting the status of each site (Appendix C) and providing that information to the Open Space Program.

The Preserve also contains the remnants of railroad beds that were part of the Greenlaw North line responsible for carrying timber into the Greenlaw lumber mill. In the first decade of the twentieth century, the Arizona Lumber & Timber Company constructed a logging railroad from its mill at Cliffs to the base of Turkey Hills. The line came within 100 meters of the southern boundary of the inner canyon. Its grade can still be seen from the southwestern edge of the site. The line was used during timber cutting operations in 1908 and 1909 and then abandoned. The remains of a train trestle made from large virgin timber can be found above the Picture Canyon waterfall. Railroad beds were utilized to build a segment of the Tom Moody Trail in the southern part of the Preserve.

³⁹ <https://www.flagstaff.az.gov/DocumentCenter/View/63883/Picture-Canyon-Cultural-Survey-Report>

If projects within the Preserve result in any new artifacts being discovered, the City has a curation agreement in place with the Museum of Northern Arizona to curate artifacts at their facility.

Management Goal: The Preserve will be managed to preserve, protect, and interpret the cultural and historic resources present on the property.

Management Policies: In addition to the general policies for managing cultural resources within legally-designated open space properties (outlined in Chapter 2.2), the following policies apply to the Preserve.

- All development within the Landmarks Overlay requires prior approval by the Heritage Preservation Commission.⁴⁰
 - Impacts requiring approval by the Heritage Preservation Commission include physical destruction or damage to all or part of a cultural resource, alteration to all or part of a cultural resource that is not consistent with applicable standards and guidelines, relocation or isolation of the cultural resource from its setting, alteration of the character of the cultural resource's setting, introduction of visual, audible, or atmospheric elements that are out of character with the cultural resource or its setting, neglect of a cultural resource resulting in its deterioration or destruction.⁴¹
 - Per Section 10-30.30.060 of the Flagstaff Zoning Code, an impact is not considered significant if it does not alter the resource, is reversible, or is temporary.⁴²
 - The City's Historic Preservation Office can approve some projects, including those that do not require substantial ground disturbance.
 - A project-specific Cultural Resource Study for cultural and historic resources (different from the Cultural Resource Survey completed by Northland Environmental in 2012⁴³) must be submitted to the Heritage Preservation Commission prior to development within the Preserve as part of the project review process.
 - Cultural Resource Studies for the Heritage Preservation Commission formally analyze the presence or potential presence of resources, the significance of known or potential resources, the integrity of known resources, the potential impacts of the proposed development, and they propose measures to mitigate such impacts.
 - In accordance with resolution No. 2012-12 adopted by the City of Flagstaff City Council in April 2012, the City of Flagstaff will comply with applicable federal, state, and local laws, regulations, rules, standards, procedures, and guidelines governing the protection of cultural resources at the Picture Canyon Preserve.⁴⁴

⁴⁰ Per Section 10-30.30.060 of the Flagstaff Zoning Code, whether or not any other permit or approval is required. The Commission can approve projects via a Certificate of Appropriateness, a Certificate of No Effect, or a Certificate of Economic Hardship.

⁴¹ Flagstaff City Zoning Code, 30.30-14

⁴² *Ibid*

⁴³ <https://www.flagstaff.az.gov/DocumentCenter/View/63883/Picture-Canyon-Cultural-Survey-Report>

⁴⁴ Picture Canyon Cultural Resources Resolution 2012-12, p.3

Planned Management Actions: In addition to the archaeological and historic resource management actions outlined in Chapter 2.2, the following actions are planned at the Preserve.

- Monitoring:
 - Establish baseline documentation with significant detail of surface artifacts and feature conditions.
 - Develop a comprehensive monitoring program for sites vulnerable to vandalism and/or degradation utilizing Arizona Site Stewards and volunteers from the Picture Canyon Stakeholder Group.
- Petroglyph panels:
 - Coordinate with partners, including Coconino National Forest, Museum of Northern Arizona, and Northern Arizona University to host field schools focused on completing scale drawings, describing panels, and photo-documenting panels for baseline documentation of rock art resources.
 - Remove or control brush that may threaten fire damage to petroglyph panels.
- Archeological structures:
 - Refine and update planimetric map of the prehistoric architectural features located in Locus A of the prehistoric site.
 - Map the extent of the cultural midden associated in Locus A with the prehistoric architectural features and document to current professional standards.
 - Evaluate options for documentation, stabilization, and interpretation of the excavated pit house.
- Develop educational signage to interpret cultural resources within the Preserve.
- Maintain ongoing government-to-government consultation about management, plant resources, and interpretation with official representatives of associated tribes, including Hopi Tribe, Navajo Nation, Yavapai Apache Nation, Prescott Yavapai Indian Tribe, Pueblo of Zuni, and the Havasupai Tribe.

3.4 Public Use

Picture Canyon Natural and Cultural Preserve provides a buffer between developed and developing industrial and residential areas in eastern Flagstaff. It serves as “neighborhoods”⁴⁵ for residents in the Doney park area, including Winona, Cosnino, and Doney Park neighborhoods who utilize the Preserve for recreation.

The Preserve is heavily used by the greater Flagstaff community for its recreational and educational values. In 2020, an estimated 1,500 individuals visited the Preserve each month to participate in outdoor recreation activities and this number is expected to grow as the trail

⁴⁵ “Neighborhoods” is a term used in the Flagstaff Area Open Spaces and Greenways Plan that refers to undeveloped areas near neighborhoods which act as a buffer and provide opportunities for recreation and relaxation.

system and infrastructure is finalized and the Open Space Program begins marketing the Preserve as an outdoor destination in northern Arizona.

There is evidence of damage and degradation from unmanaged public use including visible signs of deterioration and degradation, such as a proliferation in user-created trails, off-road vehicle damage, and trail width expansion.

The conservation easement granted to Arizona State Parks as part of the acquisition process limits public use to those that do not materially degrade the conservation values of the property. Therefore, there is a focus on providing passive recreational uses within the Natural Area (Table 5). If you are interested in using the property for a use that is not included in Table 5, contact the Open Space Program at NaturalAreas@flagstaffaz.gov.

Table 5: Permitted and prohibited recreational uses of Picture Canyon Natural and Cultural Preserve.

Permitted Uses	Prohibited Uses
Cross Country Skiing	Campfires
Virtual geocaching	Camping
Hiking/Running	Fuelwood Collection (except with permit)
Horseback Riding	Off Highway Vehicles/Driving
Snow Shoeing	Hunting
Mountain Biking	Large-Scale Activities/Events (except with express written approval from the Open Space Specialist)
Nature Study/Environmental Education	Flying model aircraft, such as drones, airplanes, or rockets (except with permit)
Wildlife Watching	

Additionally, several local organizations including the Museum of Northern Arizona, Willow Bend Environmental Education Center, and Northern Arizona University utilize the Preserve as an outdoor classroom for youth summer camps and environmental education activities.

In 2016, the Open Space Program partnered with Willow Bend Environmental Education Center to provide guided tours of the Preserve for the Flagstaff during the summer months. Additionally, as part of this partnership, Willow Bend coordinates and facilitates tours of the Preserve that incorporate educational activities for schools in the Flagstaff Unified School District. The terms of this partnership are reassessed annually.

This section of the Plan focuses on public access and roads, recreational use, easements and leases, education and research, and facility development within the Preserve.

3.4.1 Access Management

Summary of Current Conditions: There are multiple motorized and non-motorized access points to the Preserve (Figure 3). Authorized, legal motorized access points include:

- *El Paso Flagstaff Road from Route 66* – This is the designated access point for individuals wishing to visit Picture Canyon. The City has constructed a parking area that accommodates approximately 6 cars. Frequently, this does not provide adequate parking and visitors are required to park along El Paso Flagstaff Road.
- *North Rain Valley Road from Townsend-Winona Road* – This parking area provides authorized access to the northeast portion of the Preserve for City staff and project contractors. Given that North Rain Valley Road is privately maintained, it is not open for public use. A gate is installed at the Picture Canyon boundary to limit public access to the Preserve from this road.

Authorized, legal non-motorized access points include:

- The *Arizona Trail* travels diagonally through the Preserve, providing non-motorized access to the southeast and northwest corners of the Preserve.
- The *Tom Moody Loop*, a segment of the Flagstaff Urban Trail System connects adjacent parcels to Picture Canyon and ultimately, will provide non-motorized access from downtown Flagstaff, through the Preserve, to Doney Park.

Unmanaged public use of the property prior to the City's acquisition resulted in a network of unofficial, user-created roads traversing the Preserve (Figure 3). Many of these roads are unnecessary and lead to dead ends. Some are causing erosion, segmenting wildlife habitat, and facilitating illegal dumping and/or illegal vehicle trespass onto the property. Given that the City purchased this property using funding from the Arizona State Parks Growing Smarter grant, the City is required to manage it as a non-motorized property in order to protect the conservation values associated with the property.

Arizona Public Service (APS) and El Paso Gas both hold perpetual easements for utilities within the Preserve and therefore have rights to manage and maintain service roads associated with these utilities. Although these easements were originally granted by the Arizona State Land Department, the City of Flagstaff inherited them with the acquisition.

APS manages overhead power transmission lines along the southern boundary of the Preserve. This transmission line has an associated service road along the property boundary, allowing for vehicles to illegally trespass onto the Property.

El Paso Gas holds a perpetual easement for a gas transmission line and service road through the Preserve. Kinder Morgan bought out El Paso Gas in 2011 and acquired this easement.

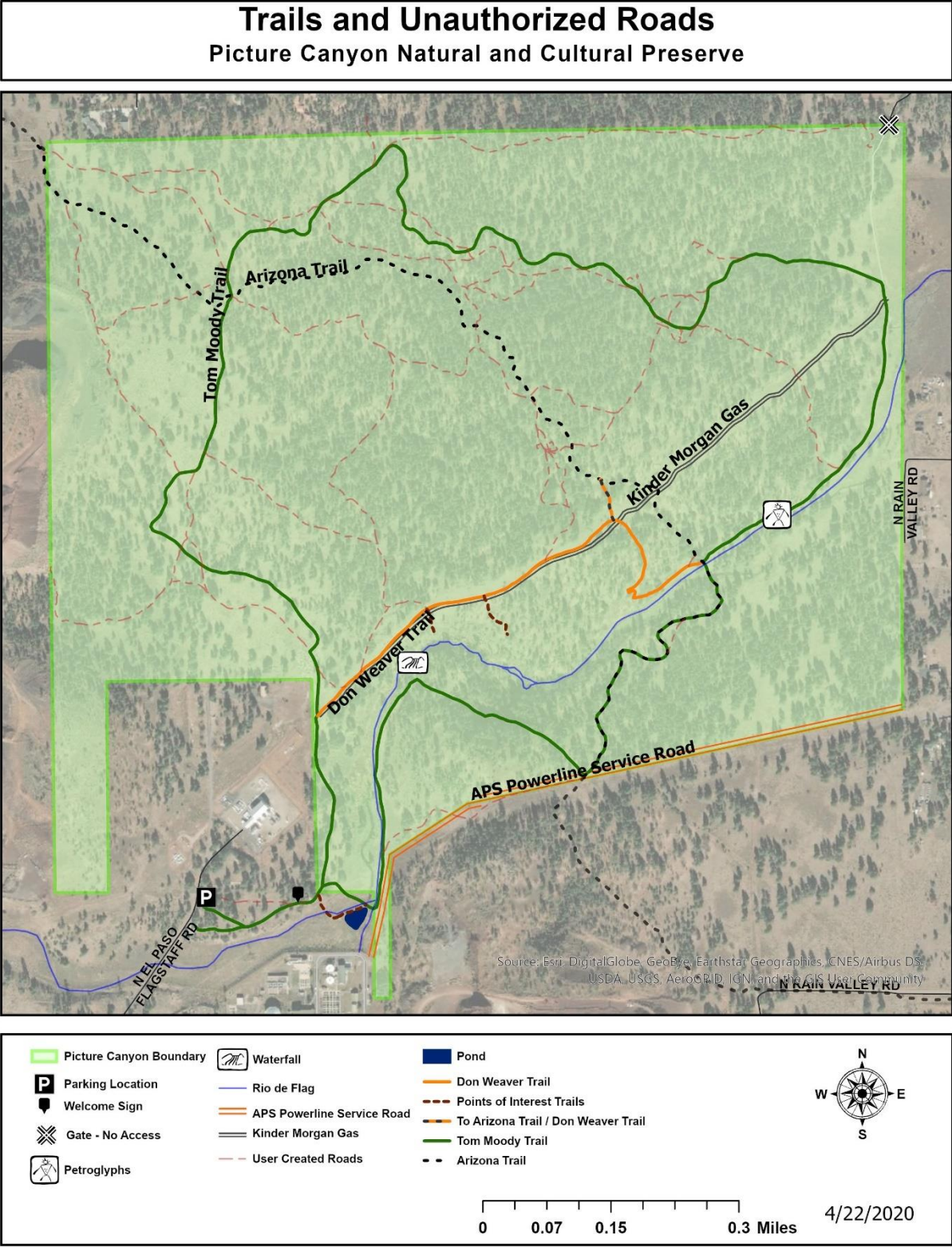


Figure 3: Motorized and non-motorized access to Picture Canyon Natural and Cultural Preserve.

Management Goal: The Preserve will be managed to ensure reasonable public access for non-motorized recreational activities aligning with the framework of the Arizona State Parks conservation easement and eliminate unauthorized motorized travel within the Preserve.

Management Policies: The policies applicable to managing access to and within the Preserve are outlined in the General Management Policies (Chapter 2.3.1).

Planned Management Actions: In addition to the management actions guiding access and road management outlined in Chapter 2.3.1, the following actions are planned at the Preserve.

- Coordinate with APS to install signs and natural barriers along their transmission line/service road at the southern boundary of the Preserve to prevent illegal trespass.
- Negotiate with landowners along Lindsey Road and North Rain Valley Road to reduce public trespass along private roads to access the northeastern portion of the Preserve but permit authorized access for projects in the Preserve.
- Construct Flagstaff Urban Trail System (FUTS) segment from Route 66 through the Wildcat Reach, providing non-motorized connectivity to the Preserve.
- Land acquisition:
 - Investigate potential of incorporating City-owned parcel to the south of the Preserve into the Preserve boundary.
 - Investigate potential of purchasing Arizona State Trust parcel upstream of Picture Canyon (north of Route 66) to connect Picture Canyon to the downtown area via the Flagstaff Urban Trail System.
 - Investigate potential of purchasing additional parcels or easements along the Rio de Flag north of the Preserve to provide FUTS connections to Townsend Winona.

3.4.2 Recreational Use

Summary of Current Conditions: The Preserve provides a buffer between developed/developing industrial and residential areas. It serves as “neighborhoods” for the Townsend-Winona/Cosnino/Doney Park neighborhoods and connects open space east of the San Francisco Peaks with that north of Walnut Canyon and Flagstaff.

A broad array of recreational activities are available within the Preserve, including hiking, bicycling, horseback riding, cross-country skiing, and snow shoeing (Table 5). As of 2020, an estimated 1,500 individuals visit the Preserve each month to participate in these activities.

Additionally, several local organizations, including the Museum of Northern Arizona, Willow Bend Environmental Education Center, and Northern Arizona University utilize the Preserve as an outdoor classroom for youth summer camps and environmental education activities.

Arizona Game & Fish Department has identified Picture Canyon as important wildlife habitat and has designated the Preserve as a site in the Arizona Watchable Wildlife Experience (AWWE) program given the wildlife watching opportunities. AWWE is a partnership of Arizona Game &

Fish Department, Arizona Wildlife Federation, City of Flagstaff, Coconino County, and Coconino National Forest to develop a designated network of watchable wildlife recreation sites in the greater Flagstaff area. Additionally, the Northern Arizona Audubon Society has designated the Preserve as a bird sanctuary and frequently hosts bird-watching events on the property.

As of 2016, there are four designated, authorized trails within the Preserve (Figure 3), although a network of user-created, unauthorized trails traverse the property given the history of unmanaged recreation prior to the City's acquisition. Open Space Program staff will need to survey the property to determine the extent of user-created trails and identify a restoration plan.

- The equestrian bypass of the **Arizona Trail**, which is a component of the Flagstaff Loop Trail, is located on the property. A 20-foot-wide trail easement was established in partnership with Coconino County. It is a natural surface, single track trail. The right-of-way is for public non-motorized access only, including hikers and bicyclists. Primarily, the trail is maintained by Arizona Trail Stewards. Any modifications to the Arizona Trail require cooperation with the Arizona Trail Association and Coconino County staff.
- The **Tom Moody Loop** follows the perimeter of the Preserve, intersecting the Arizona Trail and Don Weaver Trail at the southern boundary. Much of this trail was constructed using existing roadbeds and railroad grades. The Open Space Program maintains this trail.
 - Plans exist to convert the portion of the Tom Moody Loop between the Outdoor Classroom and Rain Valley Road into a segment of the Flagstaff Urban Trails System (FUTS). The Flagstaff Metropolitan Planning Organization, which is responsible for planning FUTS trails, has identified funding for this upgrade in 2025. This FUTS alignment will provide a connection between the Flagstaff Mall area and Doney Park for cyclists and pedestrians.
- The **Don Weaver Trail** separates from the Tom Moody Trail after the bridge across the Rio de Flag. It utilizes switchbacks from the previous alignment of the Arizona Trail up to the El Paso Gas easement and heads west along the north rim of the canyon overlooking petroglyph sites and a pithouse. This trail provides a three-mile loop around the Canyon and through the riparian area. The Open Space Program maintains this trail.
- The **Waterbird Trail** is a 75-foot trail that loops away from the Tom Moody Trail to provide visitors a safe route to experience the expansive petroglyph panels at the site. This trail was constructed in 2016 with funding from Arizona State Parks, Flagstaff Area National Monuments, and American Conservation Experience. The Open Space Program is responsible for maintaining this trail.

Management Goal: The Preserve will be managed to provide a wide variety of developed and dispersed day-use recreational opportunities.

Management Policies: In addition to the general recreation management policies outlined in Chapter 2.3.2, the following policies apply to managing recreation within the Preserve.

- Prohibit large-scale special events at the Preserve, except upon express written approval of the Open Space Specialist.

Planned Management Actions: In addition to the general recreation management actions outlined in Chapter 2.3.2, the following actions are planned for the Preserve.

- Install trash and recycling receptacles at the primary trailhead off El Paso Flagstaff Road.
- Upgrade the Tom Moody Trail to FUTS standards.
- Secure funding to install “pit” toilets at the El Paso Flagstaff Trailhead.
- Replace the existing bridge over the Rio de Flag with a bridge or boardwalk that meets Flagstaff Urban Trails System standards and allows safe access for horses and hikers.
- Coordinate with the State Historic Preservation Office to develop an alignment for the Don Weaver Trail.
- Decommission user-created, unauthorized trails within the inner canyon and riparian area.

3.4.3 Easements and Leases

Summary of Current Conditions: Many entities hold easements and/or leases within Picture Canyon Natural and Cultural Preserve (Table 6). The City of Flagstaff inherited these easements and leases from the Arizona State Land Department as part of the acquisition process and is now responsible for managing these uses. No new easements or licenses will be issued at the Preserve.

Table 6: Perpetual, non-perpetual, and expired easements and leases within Picture Canyon Natural and Cultural Preserve.

Number	Holder	Use	Issue Date	Expiration Date
PERPETUAL				
16-4421	Arizona Public Service	Electric Transmission Easement	10/3/1968	perpetual
71-3663	Arizona Public Service	Electric Transmission Easement	8/25/1964	perpetual
16-919	El Paso Gas	Gas Transmission Easement	4/8/1954	perpetual
NON-PERPETUAL				
14-3676	City of Flagstaff	Water Line Easement	9/24/1989	9/23/2039
18-98632	Fanning/Pierce	Water Line Easement	5/12/2000	11/30/21
56-105715	NAU/Centennial Forest	Right of Way	12/20/1999	12/19/2074
56-114761	City of Flagstaff	Right of Way	7/29/2010	7/28/2030
EXPIRED				
23-113715-05	City of Flagstaff	Right of Way	4/2/2009	4/1/2019

Management Goal: Manage Picture Canyon for non-consumptive, sustainable uses.

Management Policies and Actions: Policies and actions applicable to managing easements and leases within Picture Canyon Natural and Cultural Preserve are outlined in Chapter 2.3.3.

3.4.4 Education and Research

Summary of Current Conditions: Since the 1980s, Picture Canyon has been an outdoor classroom for students in northern Arizona. The abundance of archaeological sites has provided extensive educational opportunities for archaeology and cultural history. The permanent flow in the Rio de Flag serves as an educational site to study riparian habitats and watershed issues.

Many organizations utilize the Preserve for educational purposes and a long-range living classroom, including Northern Arizona University School of Forestry, Department of Anthropology, Museum of Northern Arizona, and Willow Bend Environmental Education Center.

In 2016, the Open Space Program partnered with Willow Bend Environmental Education Center to provide guided tours and educational programming for the Flagstaff community and local school groups. During the first year of the contract, Willow Bend provided 4 free tours of the Preserve to the community and fifteen tours for local school groups. The contract must be reviewed and renewed annually.

The Indigenous Youth STEM Academy with the Open Space Program was created in 2017 to provide science, technology, engineering, and math (STEM) programming at the Preserve for middle school and high school indigenous youth in and around Flagstaff. The Open Space Program was awarded a \$5,600 grant through Kahtoola for the People to continue this work.

Individuals and organizations wishing to complete research and/or monitoring projects within the Preserve are may be required to obtain a Project Specific Permit from the Arizona State Museum in addition to the Open Space Research Permit (see Chapter 2.3.4).

Management Objective: The Preserve will be managed to provide diverse educational and research opportunities.

Management Policies and Actions: Policies and actions applicable to managing education and research opportunities within Picture Canyon Natural and Cultural Preserve are outlined in Chapter 2.3.4.

3.4.5 Facility Development

Summary of Current Conditions: Since acquisition in 2012, the City has invested in a series of infrastructure improvements and developed facilities for the Preserve (Figure 4).

Kiosks exist at the primary access points to the Preserve, including at the parking area along El Paso Flagstaff Road and where the Arizona Trail enters and traverses the Preserve. Additional signage includes educational panels at the Watchable Wildlife Site (2), Outdoor Classroom (6), railroad trestle (1), Rio de Flag fencing (2), Waterbird Site (4), and along trails (1). The first phase of trail signs has also been installed, with an additional phase planned for installation.

A gate has been installed where North Rain Valley Road accesses the Preserve in order to reduce public use of the road. Two bollards were installed where the Tom Moody Trail enters the Preserve from El Paso Flagstaff Road to reduce illegal vehicle trespass onto the property.

During the Rio de Flag restoration project, the riparian area was fenced to prevent cattle and large mammals from damaging the plantings. This fencing is owned in part by the Arizona Water Protection Fund (AWPF). In 2016, the AWPf granted the City permission to remove the fencing given that the plantings are established.

Management Goal: The Preserve will be managed to provide facilities that enhance visitors' experiences within the framework of the Arizona State Parks conservation easement.

Management Policies: In addition to the general facility development management policies outlined in Chapter 2.3.5, the following policies apply to the construction of new facilities and site improvements within the Preserve.

- Submit all facility improvement projects to the Heritage Preservation Commission for approval, given Picture Canyon's location within the Landmark Overlay District.

Planned Management Actions: In addition to the general facility development actions outlined in Chapter 2.3.5, the following actions are planned for the Preserve.

- Remove fencing from Rio de Flag restoration boundary.
- Inventory property for existing infrastructure, including fences, gates, roads, trails, cattle guards, trash piles, and signs.

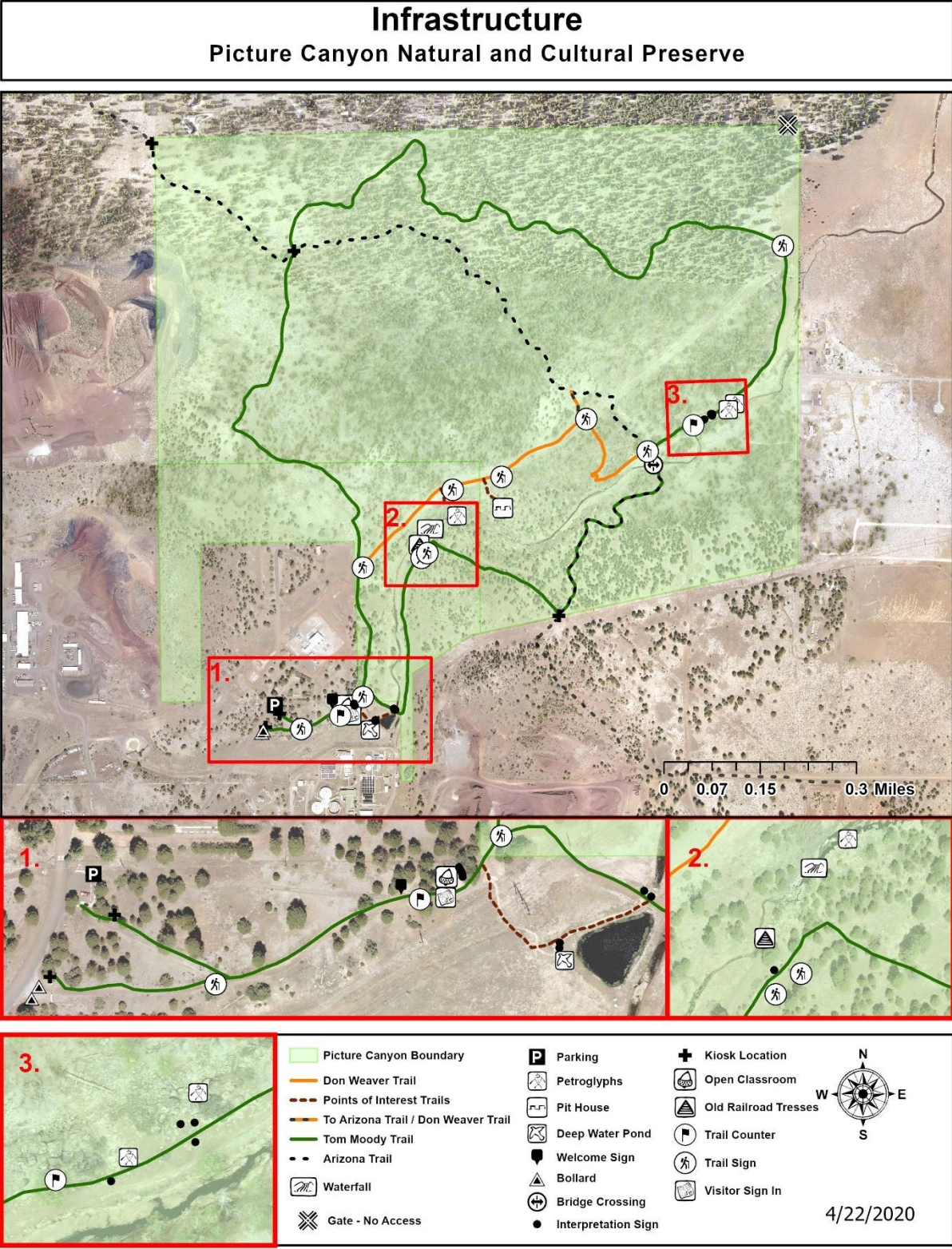


Figure 4: Infrastructure within Picture Canyon Natural and Cultural Preserve, as of February 2020.

3.5 Priority Action Plan

Provided below is a summary of priority actions that will be taken related to the expansion, development, and management of the Preserve. It is anticipated that this Priority Action Plan will be updated every two years. The biannual review will be conducted in advance of the City of Flagstaff's budget development process. Modifications to the plan will be made to reflect existing conditions at the time of each update.

Table 7: Picture Canyon Priority Action Plan – Facility Development

Action:	Responsibility:	Implementation Date:	Estimated Cost:
Install boundary signage along the perimeter of the Preserve.	City of Flagstaff	Summer 2020	\$2,500
Work with the community to investigate whether to keep or remove one culvert on the far east side.	City of Flagstaff	Summer 2020	unknown
Install regulatory signs along trails.	City of Flagstaff	Summer 2022	\$5,000
Investigate potential of developing additional parking and access points in partnership with adjacent landowners.	City of Flagstaff	Summer 2022	\$0
Remove fencing from riparian areas.	City of Flagstaff with volunteers	Summer/ Fall 2022	\$2,000
Install trash and recycling receptacles at primary trailhead.	City of Flagstaff	Summer 2023	\$3,500
Install boulders and physical barriers to block illegal OHV access at entrance points.	City of Flagstaff	Summer 2024	\$5, 000
Replace existing trail bridge over the Rio de Flag with bridge or boardwalk that meets Flagstaff Urban Trails System standards.	City of Flagstaff	Summer 2024	unknown
Secure funding to install “pit” toilets at primary trailhead.	City of Flagstaff	Summer 2024	\$30,000/ unit
Upgrade Tom Moody Trail to Flagstaff Urban Trails System standards.	City of Flagstaff	Summer 2024	\$50,000
Decommission and revegetate extraneous trails and roads not designated as part of trail system identified in the 2020 unauthorized trail analysis conducted by partner, Austin Press	City of Flagstaff	Summer 2025	\$50,000

Table 8: Picture Canyon Priority Action Plan – Resource Management

Action:	Responsibility:	Implementation Date:	Estimated Cost:
Develop trail maintenance standards and schedules.	City of Flagstaff	Summer 2022	\$0
Establish cultural resource baseline documentation.	City of Flagstaff, with volunteers	Summer 2024	Unknown
Survey the property for user-created roads and trails.	City of Flagstaff	Summer 2024	\$3,500
Secure sustainable funding for ongoing, appropriate maintenance.	City of Flagstaff	Summer 2026	\$30,000/year
Conduct in-field water quality testing and monitoring in partnership with local elementary schools.	City of Flagstaff	On-going	\$0
Conduct noxious plant surveys and maintain map of occurrence locations.	City of Flagstaff and volunteers	On-going	\$3,000/annum
Conduct sampling and laboratory analysis of water quality.	City of Flagstaff	On-going	Unknown
Conduct stream flow monitoring.	Water Resources Specialist	On-going	\$0
Develop and maintain plant and animal species observation database.	City of Flagstaff and volunteers	On-going	\$0
Maintain cottonwood/willow and rush/sedge vegetative communities.	City of Flagstaff	On-going	\$0
Monitor insect and disease occurrences.	City of Flagstaff	On-going	\$0
Monitor vegetation surrounding deep water pond.	City of Flagstaff	On-going	\$0
Conduct reptile and amphibian surveys.	AGFD with volunteers	Annually	Unknown
Update photo-monitoring program with new photographs from established monitoring stations.	City of Flagstaff	Annually	\$0
Treat invasive weeds biannually.	City of Flagstaff	Bi-Annually	\$3,000/annum
Coordinate with Flagstaff Fire Department and Arizona State Forestry to complete forest improvement projects.	City of Flagstaff	Variable	\$0
Conduct wildlife surveys for game, non-game, endangered, and special-status species.	City of Flagstaff with AZGFD assistance	As needed	\$5,000

Table 9: Picture Canyon Priority Action Plan – Partnerships

Action:	Responsibility:	Implementation Date:	Estimated Cost:
Document rock art and other cultural resources (especially architecture and midden deposits) at Locus A.	City of Flagstaff with volunteers	On-going	Unknown
Facilitate monthly Picture Canyon Stakeholder Group meetings.	City of Flagstaff	On-going	\$300/ annum
Investigate potential of securing permanent reclaimed water rights.	City of Flagstaff	On-going	Unknown
Maintain communication with adjacent landowners regarding projects and events at the Preserve.	City of Flagstaff	On-going	\$200/ annum
Maintain tribal consultation regarding projects and management.	City of Flagstaff	On-going	\$500/ annum
Manage Site Stewards Program in partnership with Arizona State Parks.	City of Flagstaff	On-going	\$0
Conduct meeting with Northern Arizona University representatives regarding on-site natural resource research work.	City of Flagstaff	Annually	\$500/ annum
Establish informal agreements with private organizations and volunteer groups related to annual bird surveys.	City of Flagstaff	Update/renew annually	\$0
Confirm existing agreements and/or establish new agreements with AZGFD regarding annual mammal and reptile/amphibian surveys.	City of Flagstaff	As needed	\$0

Completed Priority Actions:

- Install an entry sign at the El Paso Flagstaff Trailhead (Summer 2019)
- Develop a trail system plan for hiking, biking, and equine trails of varying intensity (Fall 2019)
- Install interpretive signs along trails (Spring 2019)
- Design and install trail signs throughout the Preserve (Summer 2019)
- Utilize volunteers and partner organizations to complete area monitoring and maintenance (Spring 2019)
- Establish formal Volunteer/Docent program at the Preserve. (Summer 2018)
- Install directional sign at intersection of Highway 89 and Route 66 (Spring 2017)
- Establish permanent position dedicated to open space management and maintenance. (Summer 2017)

Chapter 4: Observatory Mesa Natural Area

4.1 Property Overview

Observatory Mesa Natural Area is a 2,251 acre legally-designated open space property just west of downtown Flagstaff behind Lowell Observatory and Mars Hill (Figure 5). The property is bound on the northern, eastern, and southern boundaries by private development (primarily single-family homes), with Forest Service property immediately adjacent on the western property boundary. The Forest Service also owns a full section (center parcel, Figure 5) within Natural Area.

The legal description for the property (from the ALTA Land Survey, Appendix D) is: Section 12, T 21 N, R 6 E, and portion of Section 6, Sections 8, 17, and Portions of Section 19, T 21 N, R 7 E, Gila and Salt River Meridian, Coconino County Arizona.

The Observatory Mesa vicinity has been widely used by the Flagstaff community for decades as a hunting ground, off-road driving area, and outdoor recreation location. Varied recreational use resulted in a strong community interest in permanently protecting the area. In 2004, Flagstaff voters approved a \$5.5-million-dollar bond dedicated to acquiring approximately 480 acres of Arizona State Trust land on Observatory Mesa to provide permanent natural open spaces for public use and to preserve the unique conservation values of the area.

Additionally, Observatory Mesa is an important component of the Flagstaff-area ecosystem. Several drainages, seeps, and springs make it an important component of the Rio de Flag watershed. It is located within an important wildlife corridor that provides habitat for large mammals traveling between the San Francisco Peaks and Mogollon Rim. It also provides a natural buffer between the Forest Service property to the west and downtown Flagstaff.

Similarly to Picture Canyon Natural and Cultural Preserve, Observatory Mesa was owned by the Arizona State Land Department and operated as State Trust Land prior to the City's acquisition in 2013. The City of Flagstaff purchased the property for \$12,415,960.00 under the Arizona Preserve Initiative. \$5.5 million dollars from the 2004 Observatory Mesa bond and \$775,000 from the 2004 Flagstaff Urban Trail System/Neighborhood Open Space bond were leveraged with \$6 million dollars from an Arizona State Parks Growing Smarter grant to purchase the property.

As part of the acquisition process, a conservation easement was granted to Arizona State Parks, outlining limitations associated with the property (Appendix E) to ensure the property is retained in the condition reflected in the Baseline Documentation in the grant application. The easement also restricts the use of the property to passive recreational uses. Subsequently, the City of Flagstaff Open Space Program is required to submit annual reports to Arizona State Parks outlining all improvement projects (Appendix E). In 2016, the City of Flagstaff rezoned the entire property to Public Open Space⁴⁶ and annexed the west parcel into City Limits.⁴⁷

⁴⁶ Flagstaff City Ordinance No. 2016-21

⁴⁷ Flagstaff City Ordinance No. 2016-20

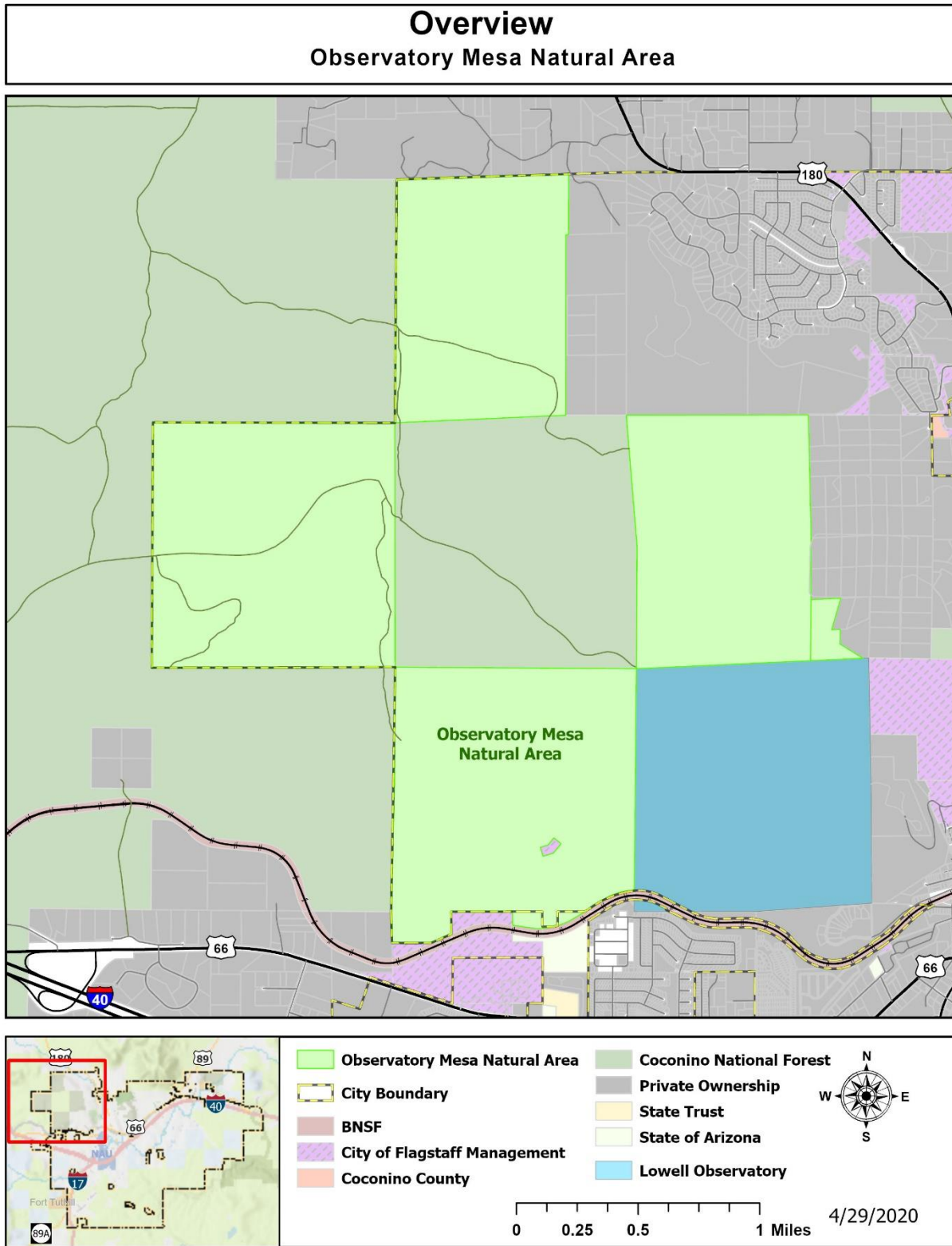


Figure 5: Observatory Mesa Natural Area land management and vicinity map.

4.2 Natural Resources

Central to the overall management of Observatory Mesa Natural Area will be the effective management of its natural resources. The water, wildlife, vegetation, and geologic resources are important factors supporting the acquisition of the property and the establishment of the Natural Area. To ensure the protection of the biological, physical, and visual resources, specific management objectives, policies, and planned management actions have been identified.

4.2.1 Water Resources

Summary of Current Conditions: There are several significant ephemeral streams/drainages which flow to the north and west into the Rio de Flag, and to the south into Clay Wash which flow directly into the Rio de Flag (Figure 6). Two intermittent streams in the north section are tributaries of the Rio de Flag. Another intermittent stream in the northeast quarter of the east section flows to the east into the Rio de Flag. The west section has three intermittent streams, one of which feeds into Belle Spring in the adjacent Forest Service section. The south section has an intermittent stream that originates from Tunnel Spring. The north and east sections also contain ephemeral water sources that feed Matson Tank on the adjacent Forest Service section. These intermittent streams make the Natural Area an important component of the Rio de Flag watershed. It is important to note that none contain true riparian habitat due to the ephemeral nature of these drainages. In addition to intermittent streams, there are also several water tanks for wildlife and livestock (Figure 6).

Tunnel Springs is located on adjacent City-owned property just outside of the Natural Area boundary. Belle Spring is located adjacent to the project boundary, just south of the west section. These sites, though not riparian areas, are important to the ecosystems and should be managed appropriately. These springs and seeps are generally located along the periphery of the Observatory Mesa escarpment, and occasionally along rock outcrops in the drainages.

Management Goal: The Natural Area will be managed to maintain or improve surface and ground water quality, surface water flow, ground water levels, and overall watershed health.

Management Policies: In addition to the overarching management policies regarding water resources (Chapter 2.1.1), the following policies apply to the management of water resources within Observatory Mesa Natural Area.

- Protect and enhance the surface and ground water resources, including springs and wildlife waters, associated with the Observatory Mesa watershed.
 - Protect Tunnel Spring from upslope erosion and recreational impacts.

Planned Management Actions: In addition to the general management actions regarding water resources in Chapter 2.1.1, the following actions are planned for Observatory Mesa Natural Area.

- Repair damage to a drainage from Forest Service road 506 (Figure 10).
- Partner with Stormwater to install an ALERT gauge for the City's early warning network.

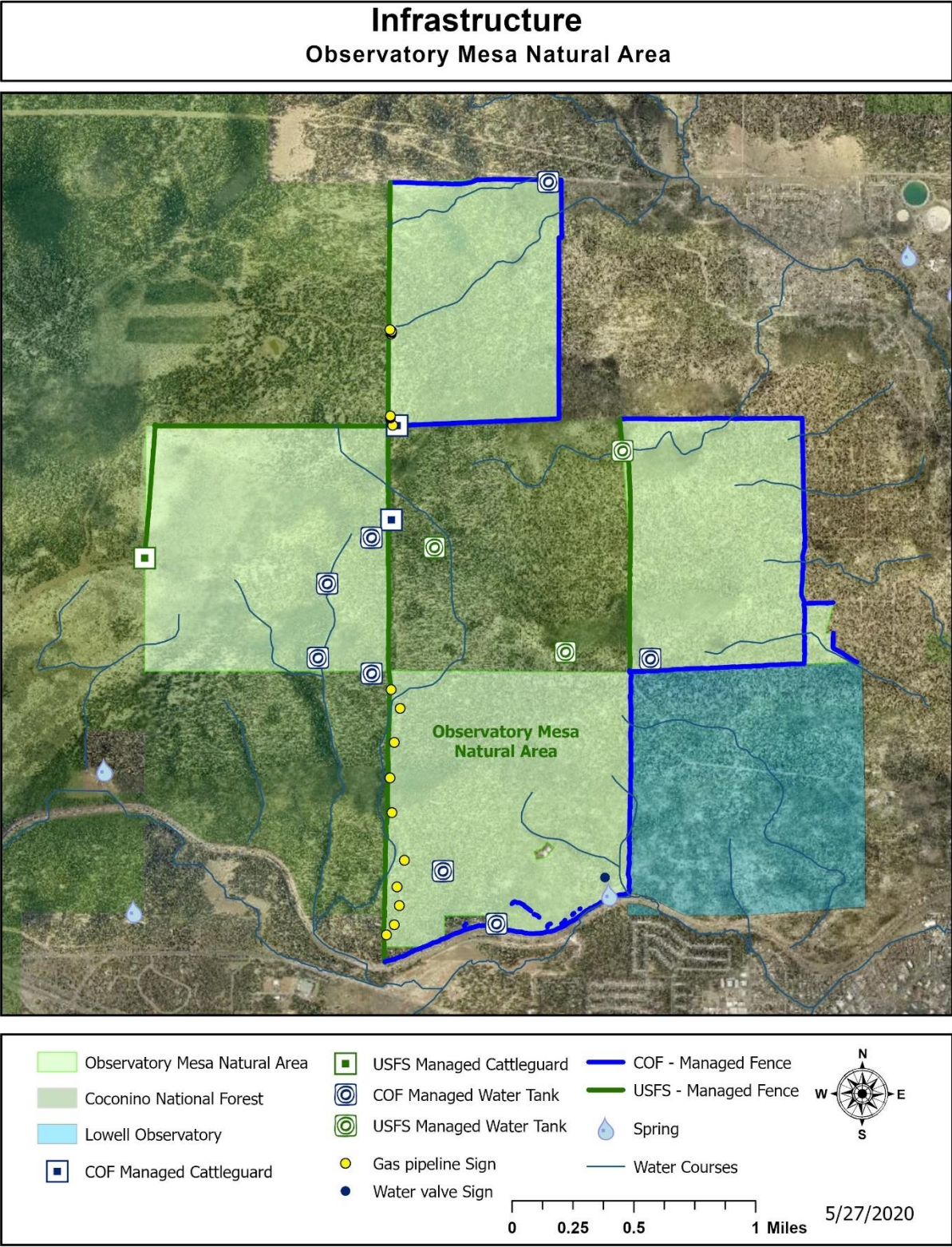


Figure 6: Infrastructure and water resource locations within Observatory Mesa Natural Area.

4.2.2 Forest and Grassland Health

Summary of Current Conditions: Observatory Mesa is a diverse area that supports suitable conditions for many woody, forb, and grass species. The biodiversity within the property is typical of a northern Arizona ponderosa pine forest. The overstory is comprised of ponderosa pine (*Pinus ponderosa*), with small pockets of Gambel oak (*Quercus gambelii*). A small number of Douglas fir (*Pseudotsuga menziesii*) trees were identified on north-facing slopes during the field inventory process. The understory shrubs and grasses are primarily comprised of: Arizona rose (*Rose arizonica*), Arizona fescue (*Festuca arizonica*), mountain muhly (*Muhlenbergia montana*), western wheat grass (*Agropyron smithii*), blue grama (*Bouteloua gracilis*), squirreltail (*Elymus elymoides*), silver lupine (*Lupinus argenteus*), and Rocky Mountain iris (*Iris missouriensis*).

A large portion of the west section was burned in the Belle Fire in 1951 and is now an open, savannah-like area. The underlying soils are not indicative of a grassland and therefore the area will need to be actively managed, using methods like tree removal and prescribed fire, to achieve the “grassland” characteristics.

The parcel and surrounding lands within a five-mile buffer provide habitat for seven sensitive plant species, as identified by State and Federal offices (Table 10). The property has not been surveyed for specific instances of these plants and a comprehensive survey is needed to determine if and where these sensitive plants are located on Observatory Mesa Natural Area.

Table 10: Sensitive plant species identified within 5-mile radius of Observatory Mesa Natural Area.

Common Name	Scientific Name	Identification Agency
Clustered Leather Flower	<i>Clematis hirsutissima</i>	USFS
Flagstaff False Pennyroyal	<i>Hedeoma diffusa</i>	USFS, State
Green Death Camas	<i>Zigadenus virescens</i>	State
Mogollon Columbine	<i>Aquilegia desertorum</i>	State
Rusby's Milkvetch	<i>Astragalus rusbyi</i>	USFS
Seashore Cactus	<i>Opuntia martiniana</i>	State

Table 11: Exotic invasive plant species identified within Observatory Mesa.

Common Name	Scientific Name
Bull thistle	<i>Cirsium vulgare</i>
Cheatgrass	<i>Bromus tectorum</i>
Common mullein	<i>Verbascum thapsus</i>
Dalmatian toadflax	<i>Linaria dalmatica</i>
Diffuse knapweed	<i>Centaurea diffusa</i>
Leafy spurge	<i>Euphorbia esula</i>
Scotch thistle	<i>Onopordum acanthium</i>
Yellow sweetclover	<i>Melilotus officinalis</i>

Staff have identified exotic and invasive species present throughout the Natural Area (Table 11). However, the property has not been formally surveyed for these or other exotic invasive species.

Before the City's acquisition of the Natural Area, the property was leased for grazing by the Arizona State Land Department and Coconino National Forest. The U.S. Forest Service continues to manage a cattle-grazing allotment on adjacent Forest Service property, including the center section. The A-1 Mountain grazing allotment includes five separate pastures (Figure 7) for the grazing permittee to move cattle between. There is City-owned and Forest Service-owned infrastructure (e.g. fencing, tanks) on the Property (Figure 6). The City is only able to maintain and/or upgrade City-owned infrastructure and must coordinate with the Forest Service for any modifications to the Forest Service-owned infrastructure. It is important to note that Arizona is a "fence out" state and therefore grazing will likely continue to occur on the west and south sections until boundary fencing is repaired or constructed along the boundary to exclude cattle from the City-owned property. The grazing permit was most recently renewed in 2016 and is on a 10-year renewal schedule. The allotment is available for 99 cattle and is usually grazed each year between June and October. A specific pasture schedule can be obtained from the Forest Service at the beginning of each summer season. More information about the City's facility development plans for the property is included in Chapter 4.4.5.

Prior to the City's acquisition, this property was also managed for timber harvest and livestock grazing. Numerous sawtimber, pulpwood, and firewood harvests have occurred on the property since the early 1900s:

- In the north section, sawtimber harvests occurred in 1919, 1925, 1950, and 1972 with pulpwood sales in 1964 and 1975.
- In the west section, sawtimber harvests occurred in 1919, 1925, 1951, 1973 with pulpwood sales in 1964 and 1974.
- In the east section, sawtimber harvests occurred in 1919, 1925, 1972 with pulpwood sales in 1964 and 1975.
- In the south section, sawtimber harvests occurred in 1919, 1925, 1955, 1973 with pulpwood sales in 1964 and 1974.

This resulted in a relatively young, even-aged forest with little vertical or horizontal structure and little understory of shrubs, forbs, and grasses. Additionally, the forest density on the property is much higher than historic conditions. There are expansive stands of small diameter ponderosa pine. Forest restoration utilizing mechanical thinning and prescribed fire is needed to restore heterogeneity to the forest structure and eventually return it to something within the range of natural variability, improve understory cover, and reduce the risk of wildfire.

Observatory Mesa Natural Area is in overall fair/good forest health. However, there are indicators that suggest some forest health issues, including pitch tubes on single trees (indicative of bark beetle activity), orange "flagging" of needles on lower branches, branches with little or

no new growth, moderate size trees standing dead or recently fallen, “tight” growth rings indicating stress and competition among trees, and dwarf mistletoe in areas.

In 2015, Arizona State Forestry Division and Flagstaff Fire Department prepared a Forest Stewardship Plan for Observatory Mesa.⁴⁸ This Plan includes recommendations for managing about multiple resource elements including soil, water, biological diversity, aesthetic quality, recreation, timber, fish and wildlife, forest health, cultural sites, wetlands, and fire.

Since the City’s acquisition, Flagstaff Fire Department has coordinated multiple forest health improvement projects on the property utilizing funds from the Flagstaff Watershed Protection Project bond and grant funding from multiple state and federal agencies. A mosaic of mechanized and hand treatments has been implemented across the property (Figure 8), with the primary goal being fuel reduction.

Management Goal: Observatory Mesa Natural Area will be managed to achieve a native forest, grassland, and riparian plant structure that is resistant and resilient to wildfire, invasive plant populations, or other disturbances and continues to provide ecosystem services to the surrounding community.

Management Policies: In addition to the general management policies regarding managing forest and grassland health (Chapter 2.1.2), the following policies apply within Observatory Mesa Natural Area.

- Maintain grassland communities and prevent encroachment and degradation using science-based forest treatment methods.

Planned Management Actions: In addition to the general forest and grassland health management policies (Chapter 2.1.2), the following actions are planned for the Natural Area.

- Maintain City-owned fencing and/or infrastructure to limit cattle trespass.
- Construct additional fencing and infrastructure along boundaries to limit the potential for cattle trespass onto City property.
- Coordinate with Coconino National Forest and grazing permittee to maintain and improve Forest Service fencing and/or infrastructure to limit cattle trespass onto City property.
- Complete a weed survey and distribution map to identify the presence and location of exotic invasive plant species.

⁴⁸ <https://www.flagstaff.az.gov/DocumentCenter/View/48308/Observatory-Mesa-Stewardship-Plan-FINAL-9-30-2015>

<p>A-1 Mountain Allotment Observatory Mesa Natural Area</p>
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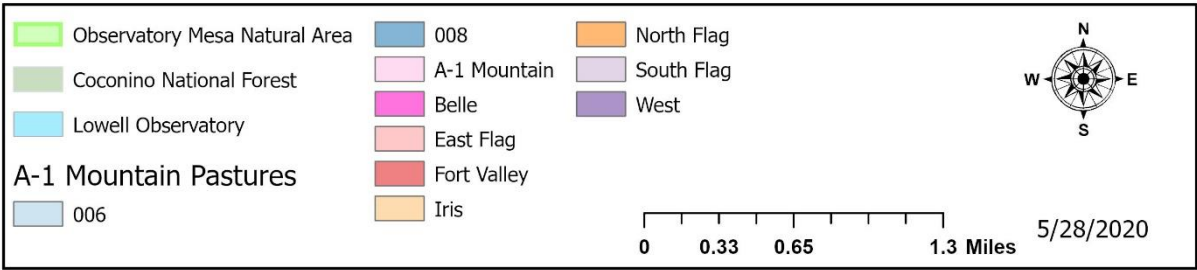
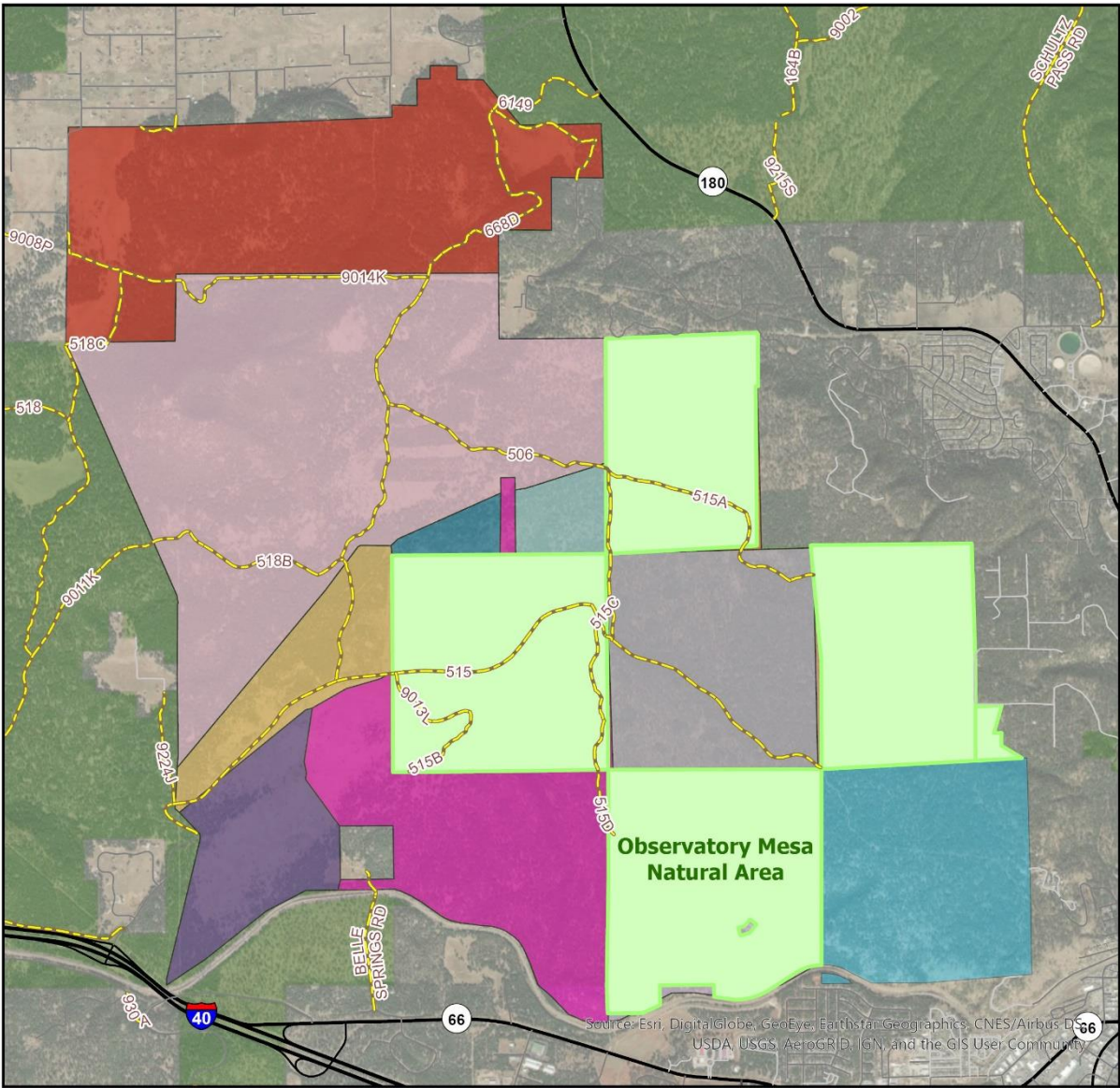


Figure 7: Grazing allotments surrounding Observatory Mesa Natural Area.

Forest Treatments

Observatory Mesa Natural Area

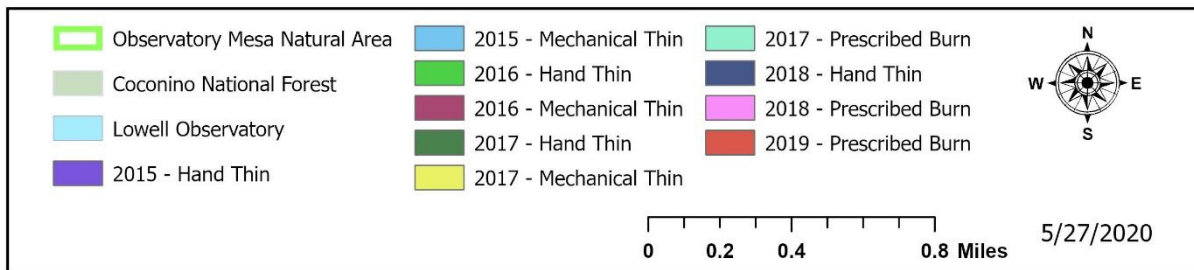
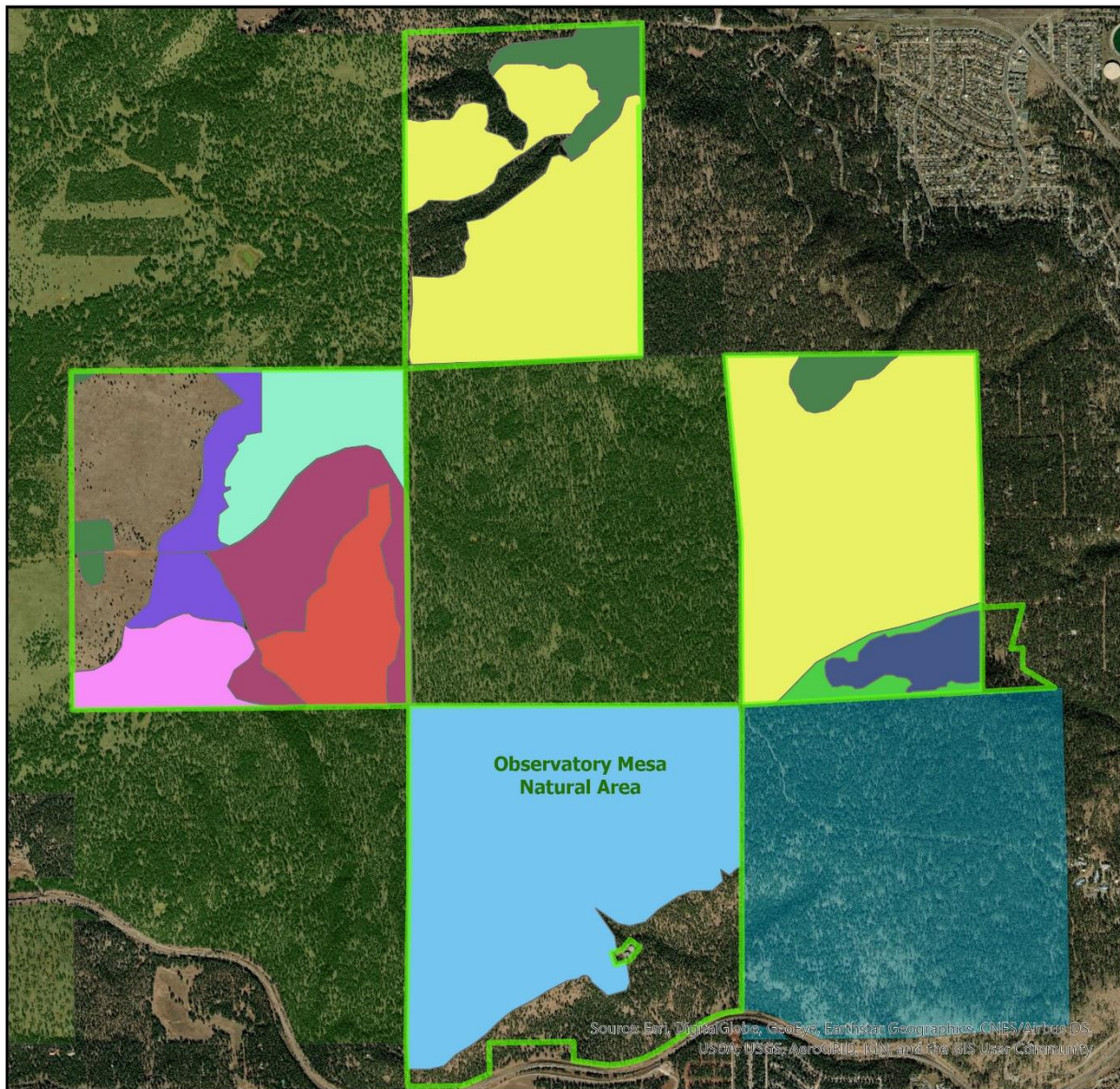


Figure 8: Forest treatments on Observatory Mesa Natural Area, as of May 2020.

4.2.3 Wildlife Resources

Summary of Current Conditions: Observatory Mesa Natural Area contains a variety of geologic, topographic, and vegetative characteristics that provide a diversity of wildlife habitats. Several vegetation types are present in the region, including ponderosa pine forest, stands of Gambel oak, high-elevation grassland and shrub-steppe, and numerous springs and seeps. These habitats provide essential resources for diverse wildlife, including: elk, pronghorn, grey fox, squirrels and other small mammals, porcupine, mountain lion, black bear, bats, turkey, raptors, migratory and resident songbirds, and reptiles and amphibians. In 2016, Observatory Mesa was designated as a Watchable Wildlife site with the Arizona Watchable Wildlife Experience.

The Arizona Game and Fish Department recognizes Observatory Mesa Natural Area and the surrounding area as an important link in a landscape-scale wildlife corridor known as the Woody Ridge Corridor, which connects habitat on the San Francisco Peaks with lower-elevation shrub and grassland habitat near the Mogollon Rim. Protecting wildlife movement corridors, including Woody Mountain Corridor, is important for numerous species because they need to access different resources seasonally and in response variations in precipitation from year to year. This corridor supports migratory movements of a wide range of species including those cited above.

Observatory Mesa Natural Area is within Arizona Game and Fish Department game management unit 11M, a metropolitan hunting unit that encompasses the greater Flagstaff area. Subsequently, hunting opportunities remain available in the Natural Area for antelope, black bear, mule deer, elk, and turkey. Hunting in Observatory Mesa Natural Area is restricted to archery (Table 12). Open seasons for each species are variable, but generally, the area is open for hunting between August and October. Hunting of any kind is not permitted within ¼ mile of an occupied residence, building, or trailhead within Flagstaff City limits. Additional information about hunting in 11M is available on the [Arizona Game and Fish Department website](#).

Table 12: Hunting regulations for Observatory Mesa Natural Area.

Method	Regulations
Hunting - rifle	Not allowed given location within metropolitan game management unit 11M.
Hunting - shotgun	Not allowed given location within City limits.
Hunting - archery	Allowed only if at least ¼ mile from an occupied building, wildlife viewing platform, picnic area or trailhead.
Retrieval of game	Motorized vehicles are restricted to open roads. Cross-country motorized game retrieval is prohibited (per City regulations).
Target practice	Not allowed given location within City limits.

Observatory Mesa Natural Area and surrounding lands within a 5-mile buffer provide habitat for fourteen sensitive species, as identified by state and federal offices (Table 13). It is important to note that these species may or may not occur within Observatory Mesa Natural Area and the City will need to work with partners to survey and inventory sensitive species on the Property.

Northern goshawk nest areas have been identified within the Natural Area (Figure 9). A post fledgling area (PFA) was identified by the Forest Service in 1993 and spans across City, Forest Service, and Lowell Observatory properties. It is unknown if this continues to be an actively used nest area. Additionally, in 2016, the Forest Service located 2 northern goshawk nest trees in the north section of the Natural Area. A PFA has not been formally identified, but the drainage area was deferred from the mechanical cutting area to protect the sensitive species. Additionally, while no American Kestrels have been recorded in the Observatory Mesa, the Flagstaff Kestrel Project has identified areas of grassland that provide good habitat.

Table 13: Sensitive wildlife species identified within 5-mile buffer of Observatory Mesa Natural Area.

Common Name	Scientific Name	Identification Agency
Allen's Lappet-browed Bat	<i>Idionycteris phyllotis</i>	FWS, USFS, State
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	FWS, USFS, BLM, State
Arizona Myotis	<i>Myotis occultus</i>	FWS
Bald Eagle	<i>Haliaeetus leucocephalu,</i>	FWS, USFS, BLM, State
California Condor	<i>Gymnogyps californianus</i>	FWS
Fringed Myotis	<i>Myotis thysanodes</i>	FWS
Golden Eagle	<i>Aquila chrysaetos</i>	FWS, BLM
Greater Western Bonneted Bat	<i>Eumops perotis californicus</i>	FWS, USFS, BLM
Long-eared Myotis	<i>Myotis evotis</i>	FWS, BLM
Long-legged Myotis	<i>Myotis volans</i>	FWS
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	FWS, State
Navajo Mexican Vole	<i>Microtus mexicanus Navaho</i>	FWS
Northern Goshawk	<i>Accipiter gentilis</i>	FWS, USFS, BLM, State
Northern Leopard Frog	<i>Rana pipiens</i>	USFS, BLM, State

Management Goal: Observatory Mesa will be managed to maintain and enhance a diversity of habitats that support native wildlife species, emphasizing the protection of rare habitat types and special-status species.

Management Policies: General management policies associated with managing wildlife resources are outlined in Chapter 2.1.3 of this plan.

Planned Management Actions: In addition to the general management actions regarding managing wildlife resources (Chapter 2.1.3), the following actions are planned.

- Enhance the Natural Area as an Arizona Watchable Wildlife Experience (AWWE) site including expanding wildlife viewing opportunities and facilities.
- Work with the Flagstaff Kestrel Project to install nesting boxes⁴⁹ and monitor for the presence of American Kestrel.

⁴⁹ Kestrel nesting boxes, made of kiln-dried pine, must be 0.5 square miles apart near open grasslands and away from heavy human activity.

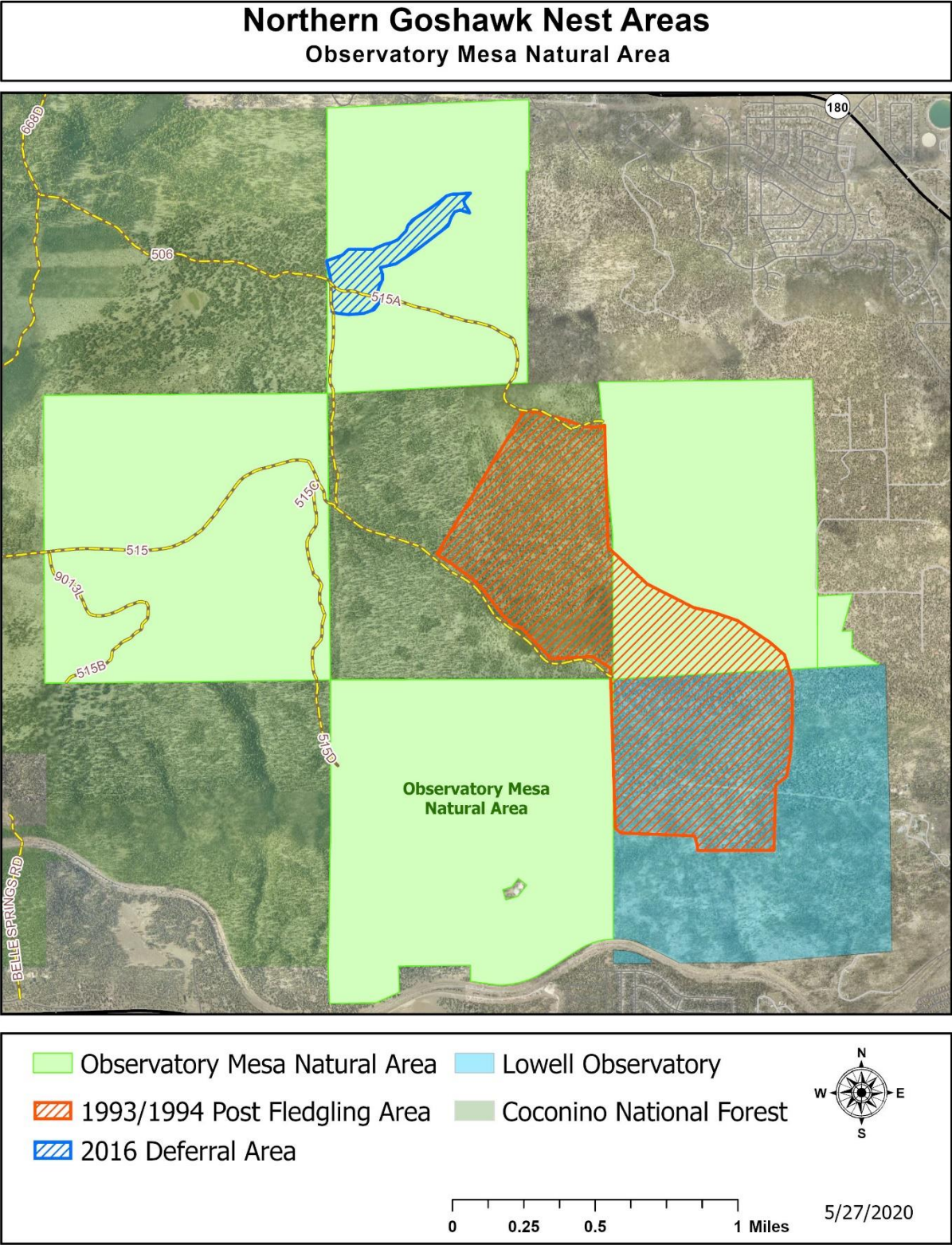


Figure 9: Northern Goshawk nest stand and post-fledgling areas identified in the Observatory Mesa Natural Area vicinity.

4.3 Cultural and Historic Resources

Summary of Current Conditions: As part of the acquisition process, Cornerstone Environmental Consulting, LLC completed a cultural resource survey⁵⁰ of the property in 2013. This survey found that the Natural Area does not have a significant number of cultural and/or historic resources and none of the existing resources are eligible for inclusion to the National Register of Historic Places. There is one site with a moderate density of prehistoric flaked stone scatter near the boundary of the north section of the Natural Area and the adjacent Forest Service parcel.

The area played a role in pioneer and Native American history, but there is little physical evidence on the property. There are several old roadbeds that are supported by hand-built rock walls. Additionally, the old sandstone railroad bridge abutments found just south of the current tracks in the south section are the oldest in Flagstaff. These are remnants of the Atlantic and Pacific Railroad line, which came to Flagstaff in 1881. There is an historic Euroamerican livestock staging area located near Tunnel Springs in the south section and multiple historic Euroamerican can dumps dated between 1915 and 1930 located throughout the property. Specific details about all these sites can be found in the cultural resource survey.⁵¹

Management Goal: Observatory Mesa Natural Area will be managed to preserve, protect, and interpret the cultural and historic resources present on the property.

Management Policies and Actions: General management policies and actions associated with managing cultural and historic resources within the Natural Area are outlined in Chapter 2.2 of this plan.

4.4 Public Use

Observatory Mesa Natural Area provides a buffer between developed and developing residential lands and undeveloped forest properties. It serves as “neighborhoods” for downtown Flagstaff, Cheshire, Lynwood, and Coconino Estates neighborhoods. Subsequently, Observatory Mesa Natural Area receives substantial recreational use due to its proximity to the above-mentioned neighborhoods and the downtown area. Additionally, the property is heavily used by the broader Flagstaff community and is showing the effects of unmanaged recreation and public use, including visible signs of deterioration and degradation, including a proliferation in user-created trails, off-road vehicle damage, and trail width expansion.

The conservation easement limits public use to those that do not materially degrade the conservation values of the property. Therefore, there is a focus on providing passive recreational uses within the Natural Area (Table 14). If you are interested in using the property for a use that is not included in Table 14, contact the Open Space Program at NaturalAreas@flagstaffaz.gov.

⁵⁰ “[A Cultural Resources Survey of 2,260 Acres on Observatory Mesa in Flagstaff, Coconino County, Arizona](#)”. Cornerstone Environmental Consulting, LLC. 2013.

⁵¹ *Ibid*

Table 14: Permitted and prohibited recreational uses of Observatory Mesa Natural Area.

Permitted Uses	Prohibited Uses
Cross Country Skiing	Campfires
Driving on Designated Roads	Camping
Virtual geocaching	Fuelwood Collection (except with permit)
Hiking/Running	Large-Scale Activities/Events (except with permit)
Horseback Riding	Off-Road Driving
Hunting (with permit)	Flying model aircraft, such as drones, airplanes, or rockets (except with permit)
Mountain Biking	
Nature Study/Environmental Education	
Snow Shoeing	
Wildlife Watching	

This section of the Plan focuses on public access and roads, recreational use, easements and leases, education and research, and facility development within the Natural Area.

4.4.1 Access Management

Summary of Current Conditions: There are motorized and non-motorized access points to Observatory Mesa Natural Area. Authorized, legal motorized access points include:

- Forest Service roads that are designated as “Open” under the Travel Management Rule (Figure 10). As of 2019, this includes:
 - Forest Service Road 506 (western boundary of the north section)
 - Forest Service Road 515 (western boundary of the west section)

Authorized, legal non-motorized access points include (Figure 11):

- Mars Hill Trail via Thorpe Park Bark Park
- Tunnel Springs Trail via Railroad Springs Avenue
- Observatory Mesa Trail via Cheshire/Anasazi Ridge Neighborhood

The Forest Service holds easements for several roads on the property, many of which have been closed to public motorized use as part of the Travel Management Rule (TMR) process. Due to resource constraints, these “closed” roads are not signed or physically blocked off and visitors are required to reference an updated Travel Management Map to know if roads are “open” or “closed” to public use. Decommissioning closed Forest Service roads by physically blocking them generally requires approval through the National Environmental Policy Act planning process of the Coconino National Forest. This process is not necessary for decommissioning roads not included in the Forest Service network.

Unmanaged public use has resulted in a maze of unofficial roads (Figure 10) that are often unnecessary and lead to dead ends. Some of these are causing erosion, destroying wildlife habitat, and facilitating illegal dumping.

Based on the 2011 Coconino National Forest Travel Management decision, motorized retrieval of big game is limited to Forest Service roads that are designated as “open” under the Travel Management Rule. Travelling cross country to retrieve game is expressly prohibited under the Arizona Game and Fish Department hunting regulations. More information about hunting on Observatory Mesa can be found in Chapter 4.2.3.

Management Goal: Observatory Mesa will be managed to ensure reasonable public access for non-motorized recreational activities within the framework of the Arizona State Parks conservation easement and eliminate motorized travel on unauthorized and “closed” roads.

Management Policies: In addition to the general access and road management policies outlined in Chapter 2.3.1, the following policies apply to the management of roads within Observatory Mesa Natural Area.

- Permit motorized travel on Forest Service roads that are designated as “open” under the most recent Travel Management Rule.

Planned Management Actions: In addition to the planned management actions regarding access and road management (Chapter 2.3.1), the following actions are planned within the Natural Area.

- Investigate potential for implementing a speed limit along A-1 Mountain Road.
- Coordinate with the Coconino National Forest to officially “close” Forest Service roads 515A and 515D on the property through the Travel Management Rule process.
- Coordinate with the Coconino National Forest to physically block off or sign Forest Service roads that have been designated as “closed” to public use through the Travel Management Rule.

Authorized and Unauthorized Roads

Observatory Mesa Natural Area

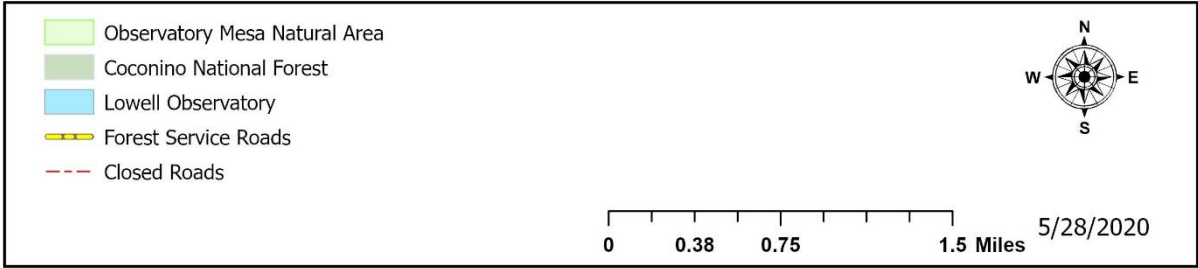


Figure 10: Forest Service road network on Observatory Mesa Natural Area, including closed roads.

Trails

Observatory Mesa Natural Area

5/28/2020

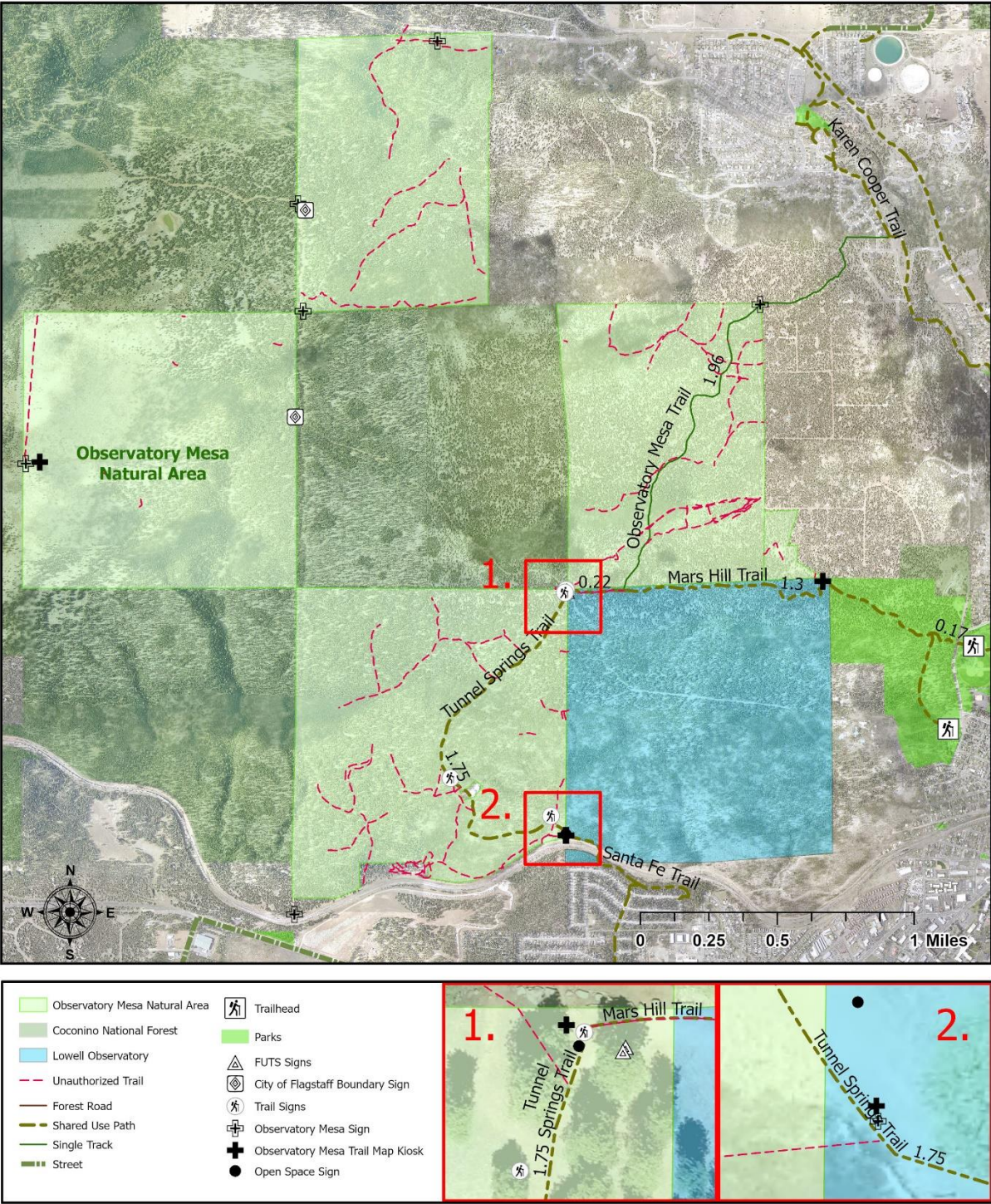


Figure 11: Official trail system on Observatory Mesa, comprising non-motorized access from the Mars Hill, Tunnel Springs, and Observatory Mesa trails.

4.4.2 Recreational Use

Summary of Current Conditions: Observatory Mesa Natural Area is a day use area and overnight uses, including camping, are strictly prohibited. A broad array of recreational day activities are currently available on the property, including hiking, bicycling, horseback riding, cross-country skiing, and snow shoeing. At the time of publication of this Plan, there were three designated, authorized trails within the Natural Area, although a comprehensive survey of the property identified a significant number of user-created, unauthorized trails traversing the property (Figure 11).

- The ***Observatory Mesa Trail*** is a component of the Flagstaff Loop Trail, which was established in partnership with Coconino County. There is a 20-foot-wide trail easement. It is a natural surface, single track trail. The right-of-way is for public non-motorized access only, including hikers and bicyclists. Coconino County is responsible for maintaining the trail.
- The ***Tunnel Springs*** and ***Mars Hill Trails*** are popular segments of the Flagstaff Urban Trail System. These trails are surfaced with “FUTS mix”, comprising of cinders, dirt, and other aggregates. These trails are used for non-motorized forms of recreation, including hiking and bicycling. Authorized vehicles can traverse the trail using vehicles. The City of Flagstaff Parks Department is responsible for maintaining the trail.

Additionally, Observatory Mesa Natural Area is within Arizona Game and Fish Department game management unit 11M, a metropolitan hunting unit. Hunting opportunities remain available in the Natural Area, restricted to archery. See Table 11 (Chapter 4.2.3) for additional information about hunting regulations on Observatory Mesa.

Management Goal: Observatory Mesa Natural Area will be managed to provide a wide array of developed and dispersed day-use recreational opportunities.

Management Policies: In addition to the general management policies regarding recreational use outlined in Chapter 2.3.2, the following management policies apply to Observatory Mesa Natural Area.

- Permit large-scale special events, upon receipt of a Special Event Permit via the City of Flagstaff Office of Community Events.
- Permit motor vehicle use on Forest Service roads designated as “open” for public use under the most recent Travel Management Rule.

Planned Management Actions: In addition to the general planned management actions regarding recreational use (Chapter 2.3.2), the following actions are planned for the Natural Area.

- Establish a Trail System Plan for the Natural Area, in partnership with adjacent landowners, state/federal agencies, local organizations, and other stakeholders.
- Host at least one stakeholder meeting each year to provide a platform to discuss management considerations, improvement projects, and the status of the property.

4.4.3 Easements and Leases

Summary of Current Conditions: Many entities hold easements and/or leases within Observatory Mesa Natural Area (Table 15). The City of Flagstaff inherited these easements and leases from the Arizona State Land Department as part of the acquisition process and is now responsible for managing these uses. No new easements or licenses will be issued at the Natural Area, though renewals of existing agreements are permitted.

Table 15: Perpetual, non-perpetual, and expired easements and leases within Observatory Mesa Natural Area.

Number	Holder	Use	Issue Date	Expiration Date
PERPETUAL				
16-88092	Bea Lee	Public Roadway	11/6/86	perpetual
16-1857	El Paso Gas	Pipelines, a Road, and Power Lines	1/12/60	perpetual
61-85609	USDA Forest Service	Road Easement	1/18/83	perpetual
16-84074	Westridge Property Owners Association	Road Easement	10/26/82	perpetual
16-112295	Coconino County	Flagstaff Loop Trail (non-motorized recreation trail)	4/28/09	perpetual
16-106903	City of Flagstaff	Non-motorized public access trail	3/14/03	perpetual
9-2736	City of Flagstaff	Water Pipeline	6/7/93	perpetual
9-2915	ADOT	Road Easement	10/27/61	perpetual
16-8715	Gore and Associates		7/19/84	perpetual
16-105739	City of Flagstaff	Non-exclusive access road and non-motorized public access trail within ROW	6/8/00	perpetual
09-97816	Burlington Northern Santa Fe Railroad	Railroad Easement	6/18/93	perpetual
107-001953	Arizona Public Service	Electric Easement	1/12/57	perpetual
18-2090	Arizona Public Service	Electric Power Line	2/19/59	perpetual
71-2430	Qwest Corporation	Communication Line	3/21/60	perpetual
16-105208	City of Flagstaff	Detention Basin and Berm	1/18/02	perpetual

Number	Holder	Use	Issue Date	Expiration Date
NON-PERPETUAL				
14-99604	Transwestern Pipeline Company, LLC.	Gas Transmission Line	7/16/92	7/15/2042
14-105737	City of Flagstaff	Water Transmission Line	6/5/00	6/7/2050
18-108445	Arizona Snowbowl Resort	Reclaimed Water Pipeline	6/22/18	6/21/2028
EXPIRED				
18-52063	Arizona Public Service	Electric Distribution Line	8/24/06	5/23/2016
53-107566	Voyager Flagstaff 54		6/27/07	6/26/2014

Management Goal: Manage Observatory Mesa for non-consumptive, sustainable uses.

Management Policies and Actions: General management policies and actions regarding easements and leases on Observatory Mesa Natural Area are outlined in Chapter 2.3.3.

4.4.4 Education and Research

Summary of Current Conditions: Since the 1990s, Observatory Mesa has been an outdoor classroom for northern Arizona students. The abundance of astronomical viewing opportunities led to the educational use of this area by Lowell Observatory and local schools. Northern Arizona University (NAU) professors have conducted biological studies of wildlife on the Mesa and several NAU classes visit the property to learn about land management and forestry practices, especially with the recent Flagstaff Watershed Protection Project treatments on the property.

Lastly, the Lowell Observatory was established on the edge of the Mesa overlooking Flagstaff in 1892. The Observatory was granted Section 17, which is immediately adjacent to the Natural Area, to manage and conduct observational activities and protect the Mesa from development that would adversely affect its research. Preserving Observatory Mesa Natural Area is very important to preserve the dark skies that enable ongoing astronomical research and education at Lowell Observatory.

Management Goal: Observatory Mesa Natural Area will be managed to provide diverse educational and research opportunities.

Management Policies and Actions: General management policies and actions associated with managing educational and research opportunities within Observatory Mesa Natural Area are outlined in Chapter 2.3.4 of this plan.

4.4.5 Facility Development

Summary of Current Conditions: In August 2016, the Open Space Program mapped facilities on the property to develop a baseline understanding of what facilities exist on the property and their condition. The inventory involved collecting GPS-points for fence lines, trails (user-created and legal), roads (user-created, “closed”, and “open”), tanks, cattle guards, gates, trash piles, transient encampments, and signs (Figure 12).

A portion of the boundary has been fenced to effectively manage cattle on the adjacent Forest Service pastures and serve the benefit of keeping cattle off of the property. Given that the fencing was fabricated by multiple entities, it is not standardized and there is a mixture of barbed and wooden fencing in varying condition throughout the property (Figure 6). This fencing is owned and maintained by multiple organizations, including the City of Flagstaff, Coconino National Forest, and the grazing permittee.

Additionally, several gates, signs, and kiosks have been installed on the property (Figure 12), some of which need to be improved, updated, or removed.

Management Goal: Observatory Mesa Natural Area will be managed to provide facilities that enhance visitors’ experiences according to the requirements of the Arizona State Parks conservation easement and available funding.

Management Policies: General management policies associated with managing facility development within Observatory Mesa Natural Area are outlined in Chapter 2.3.5 of this plan.

Planned Management Actions: In addition to the general management actions associated with facility development (Chapter 2.3.5), the following actions are planned for the Natural Area.

- Build a parking area along Forest Service road 515 at the western edge of the west section.
- Investigate locations for parking areas that access the north and/or east boundaries.
- Repair and/or construct fencing along boundaries of the west and south sections to exclude cattle from City-owned property.
- Coordinate with Forest Service to conduct boundary surveys of the property.

Issues found during 2016 Survey Observatory Mesa Natural Area

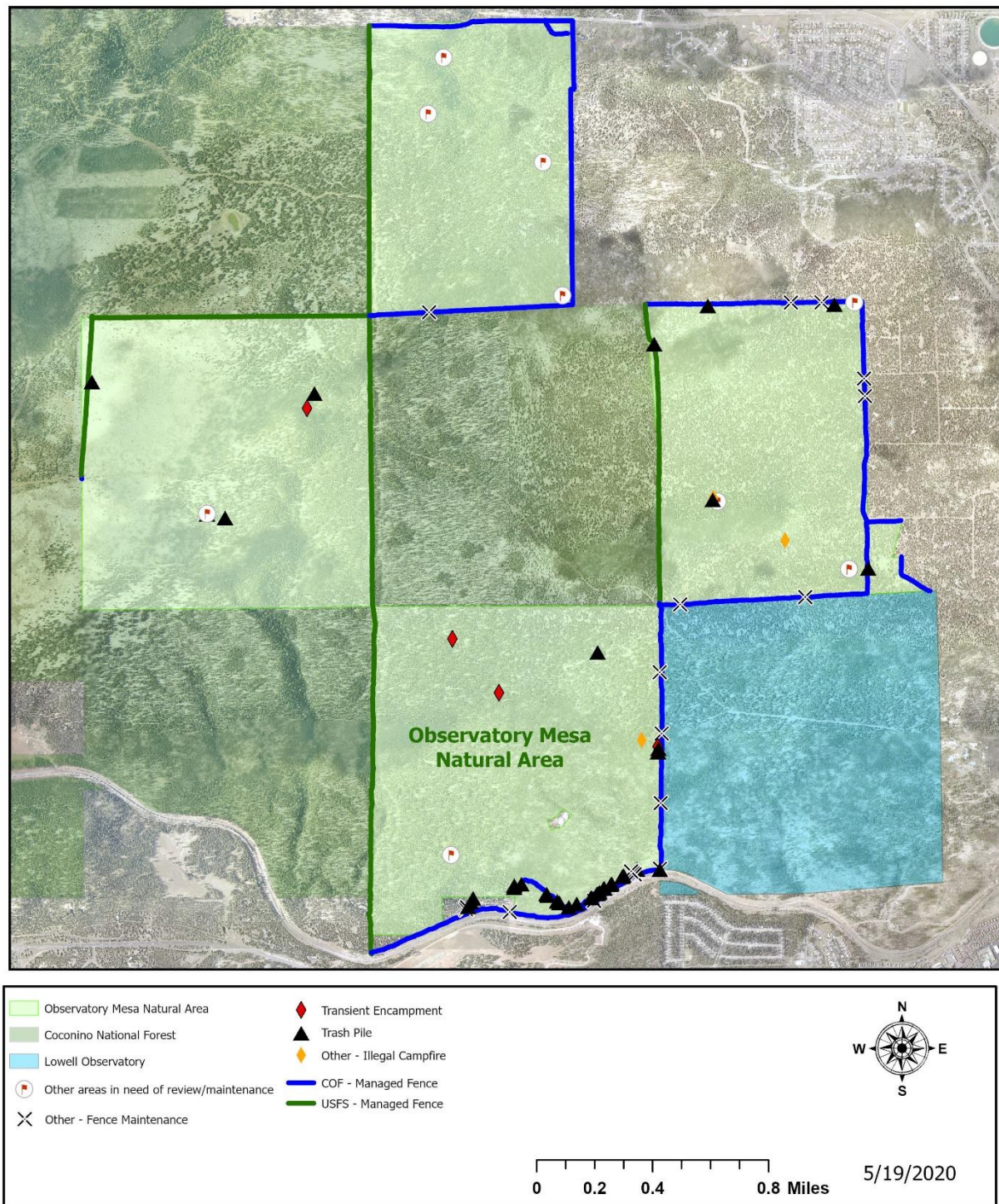


Figure 12: Recorded issues and maintenance needs on Observatory Mesa Natural Area. Some infrastructure is owned, managed, and maintained by the Coconino National Forest.

4.5 Priority Action Plan

Provided below is a summary of priority actions that will be taken related to the expansion, development, and management of the Natural Area. It is anticipated that this Priority Action Plan will be updated every two years. The biannual review will be conducted in advance of the City of Flagstaff's budget development process. Modifications to the plan will be made to reflect existing conditions at the time of each update.

Table 16: Observatory Mesa Priority Action Plan – Facility Development

Action:	Responsibility:	Implementation Date:	Estimated Cost:
Install boundary signage along the perimeter of the Natural Area.	City of Flagstaff	Summer 2022	\$2,500
Install “No Camping” signs on Mars Hill Trail	City of Flagstaff	Summer 2022	\$750
Investigate potential of moving Westridge gate 50 feet west to create a formal parking area.	City of Flagstaff	Summer 2022	unknown
Investigate potential of developing additional parking and access points in partnership with adjacent landowners.	City of Flagstaff	Summer 2023	unknown
Develop trail maintenance schedules and standards.	City of Flagstaff	Summer 2024	\$0
Clearly mark designated trails and roads within the property.	City of Flagstaff	Summer 2025	\$5,000
Design and install educational and interpretive signage along trails.	City of Flagstaff	Summer 2025	\$15,000
Develop a diverse trail system plan for hiking, biking, and equine trails.	City of Flagstaff	Summer 2025	\$3,500
Maintain/improve wildlife-friendly fencing to reduce cattle trespass	City of Flagstaff	Summer 2025	\$15,000
Decommission extraneous trails not designated as part of trail system.	City of Flagstaff	Fall 2025	\$30,000
Design, construct, and install welcome kiosks at key entrance points.	City of Flagstaff	Fall 2025	\$3,000
Establish parking area along Forest Service road 515 on western side of the west section.	City of Flagstaff	Fall 2025	\$5,000
Install larger Game Unit 11M signs along major trails and at primary access points.	City of Flagstaff	Summer 2026	\$1,000
Decommission and revegetate illegal roads within the Area.	City of Flagstaff	Summer 2028	\$50,000
Utilize volunteers and partner organizations to complete area monitoring and trail maintenance.	City of Flagstaff	On-going/ monthly	\$0

Table 17: Observatory Mesa Priority Action Plan – Partnerships

Action:	Responsibility:	Implementation Date:	Estimated Cost:
Establish internal City of Flagstaff task force with representatives from Flagstaff Fire Department, Police Department, Parks, Planning, Real Estate, etc.	City of Flagstaff	Quarterly Meetings	\$0
Establish a partnership with Arizona Game and Fish Department to develop a Watchable Wildlife program.	City of Flagstaff	Summer 2022	\$0
Provide science programs for visitors (e.g. forest ecology, plants, astronomy, and wildlife).	City of Flagstaff and partner organizations	Summer 2022	\$3,000
Incorporate trails into Community Stewards program for adoption and stewardship.	City of Flagstaff	Summer 2024	\$0
Conduct meetings with Northern Arizona University representatives regarding on-site natural resource research work.	City of Flagstaff	Annually	\$0
Establish informal agreements with private organizations and volunteer groups related to completing annual bird surveys.	City of Flagstaff	Update/renew annually	\$0
Confirm existing agreements and/or establish new agreements with AZGFD regarding annual mammal and reptile/amphibian surveys.	City of Flagstaff	As needed.	\$0
Coordinate with community partners to remove invasive weeds.	City of Flagstaff with volunteers	As needed	\$500

Completed Priority Actions

- Install regulatory signs along trails. (Summer 18)
- Establish formal Volunteer/Docent Program at the Natural Area. (Summer 18)
- Install dog waste bag dispenser at primary access points. (Summer 17)
- Install boulders and physical barriers to block illegal vehicle access at entrance points. (Summer 17)

Chapter 5: McMillan Mesa Natural Area

5.1 Property Overview

The topography of McMillan Mesa was shaped by periods of tectonic scale geologic change in the western United States over the last 65 million years in north-central Arizona. Rapid uplift associated with the rise of the Colorado Plateau began around 5 million years ago and continues to occur. More recent and localized fracturing, faulting, and uplift is also likely related to volcanism in the surrounding San Francisco Volcanic Field. McMillan Mesa was formed when a vent near Woody Ridge erupted during a volcanic period about 6 million years ago. Thick basalt flows spread across surface outcrops of red Moenkopi sandstone, slowly eroding into the weathered malpais we see today.

Much of what is now McMillan Mesa was a component of US Forest Service holdings in the Flagstaff area. The City traded land in the Inner Basin of the San Francisco Peaks to the Forest Service for large parcels on McMillan Mesa and what is now Buffalo Park. The area is named after Thomas McMillan, one of the earliest Flagstaff area settlers, who owned land near what is now Cheshire and the Museum of Northern Arizona. He was a prominent citizen in the Flagstaff community and an early Coconino County Supervisor.

Community members and local organizations have advocated for preservation of the greater McMillan Mesa area for decades. Through the years, various agencies have proposed plans and concepts for the property, but there was not consensus about what the primary use of the property should be (e.g. active park land, passive open space, or other forms of development).

The City Council adopted the McMillan Mesa Village Specific Plan in 1992 and the McMillan Mesa Master Plan in 2002. The Flagstaff 2030 Regional Plan acknowledged the ongoing community conversation regarding the conservation values of the Mesa and designated portions of the City parcels on the Mesa north of Forest Avenue as “Employment,” southwest as “Future Suburban,” and areas outside of Buffalo Park as “Area in White” – a designation that does not bind those parcels to any specific use.

On November 8, 2016, approximately 86% of Flagstaff voters voted in favor of Proposition 413 – Campaign for a Greater Buffalo Park. This proposition restricted the use of approximately 300 acres of City-owned property on McMillan Mesa to public open space and passive recreation.⁵² The results of the election were canvassed and approved by Resolution Number 2016-38 on November 28, 2016. The preservation of these lands was enacted through the voter initiative process and therefore, can only be amended by the City Council if the proposed amendment furthers the original purpose of Proposition 413. Any substantive changes that do not further the purpose would have to go back to the voters. This provides the highest level of protection available.

⁵²Flagstaff City Initiative Number 2016-02

The land affected by Proposition 413 is currently zoned as Public Facilities and Rural Residential,⁵³ both of which permit “Outdoor Public Uses, General” and “Passive Recreation” as allowed uses.⁵⁴ Therefore, the City can plan and develop trails, trailheads, parking, and other amenities consistent with the initiative. According to the Ordinance, the City cannot sell the land or permit any of the other allowed uses under Public Facilities and Rural Residential, and therefore it is protected as de facto conservation land given the development limitations.

Even though the current zoning allows for the passive recreation uses required by the proposition, the City Council directed staff to amend the Regional Plan and Zoning Code to reflect the outcomes of Proposition 413. The City Council approved the McMillan Mesa Natural Area major plan amendment⁵⁵ on Tuesday, October 16th, 2018. The resolution amended the Flagstaff Regional Plan 2030 by amending the Future Growth Illustration (Maps 21 and 22) and the Road Network Illustration (Map 25) to make the land use and road network designations consistent with the McMillan Mesa Natural Area. It also clarified the extent of surrounding land uses on City property, corrected mapping errors, and established an effective date. The resolution went into effect on November 15, 2018.

The 317.90-acre McMillan Mesa Natural Area is primarily surrounded by private parcels, designated City-park land (McPherson Park and Buffalo Park), and other City-owned properties. Surrounding neighborhoods and parcels include to the west, Switzer Mesa, McMillan Mesa Village, Stone Ridge and Hospital Hill, to the north, the USGS and NACET Business Park, east are Shadow Mountain, Grandview Homes, and Sunnyside, and south lies the San Francisco de Asis Roman Catholic Parish property (Figure 13 and Figure 14). Subsequently, the expansive conservation land preserves “neighborhoods” for nearby neighborhoods including Sunnyside – Census Tract 3, which is identified as a Title VI, low-income area. Executive Order 12898 focuses attention on Title VI by providing that “each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” Thus, the protection of McMillan Mesa is an important success in social justice, providing access to natural settings that help support better health, environment, and equitable access.

The preservation of the McMillan Mesa Natural Area is presented with several land management challenges. Population growth and related surrounding development creates the most immediate impacts. Arizona was the fourth fastest growing state in the U.S. between July 2017 and July 2018.⁵⁶ The population estimate of Flagstaff was an approximated 73,964 in 2018, with a 6.4% increase since April 2010.⁵⁷ Population growth and development have greatly affected the Natural Area’s wildlife habitat, viewshed, night sky, sound pollution, vegetation, and the human

⁵³ As of March 2019

⁵⁴ Flagstaff City Zoning Code 10-40.30.030 and 10-40.30.060

⁵⁵ Flagstaff City Resolution 2018-50

⁵⁶ U.S. Census Bureau, 2018. “Nevada and Idaho Are the Nation’s Fastest-Growing States”. Press Release.

⁵⁷ U.S. Census Bureau, American Fact Finder [tool](#).

experience. With growth, increased use impacts the fragile characteristics of the ecosystem, ecological succession and soil development.

McMillan Mesa Natural Area consists of portions of 5 separate parcels within sections 10, 11, 14, and 15:

- 107-01-001B: 152-acre parcel southeast of Gemini Drive and the “cinder pit” parcel.
- 101-28-007C: 19-acre parcel immediately north of the “Horseshoe Neighborhood”.
- 110-08-001G: the southwest portion of this parcel bounded by USGS facility, Switzer Canyon Trail, Forest Avenue, and North Turquoise Drive.
- 109-02-001S: the southern portion of this 107-acre parcel bounded by Forest Avenue, Coconino High School, the “cinder pit”, and the APS powerline.
- 107-01-001F: 2 acres, located southeast of Gemini Drive.

Along with the 5 parcels indicated above, the Regional Plan amendment included the following parcels as Parks/Conservation Land to be managed for the benefit of the community.

- 101-37-002J and 107-01-001G: City-owned parcels less than 0.09 acres in size, adjacent to 107-01-001F, which were not included in Proposition 413; however, the parcel is too small to be used for other purposes, unless combined with an adjacent parcel.

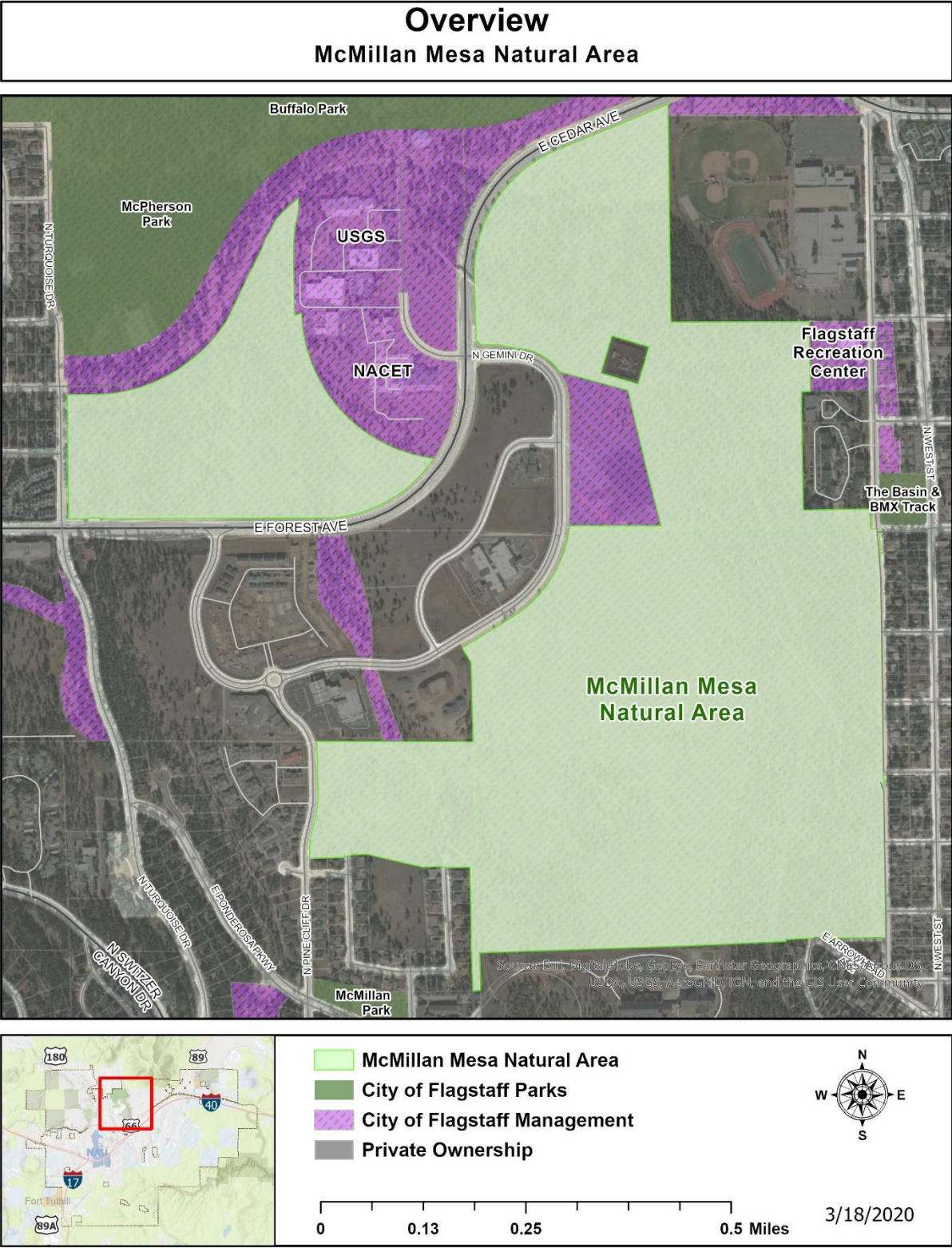


Figure 13: McMillan Mesa Natural Area vicinity.

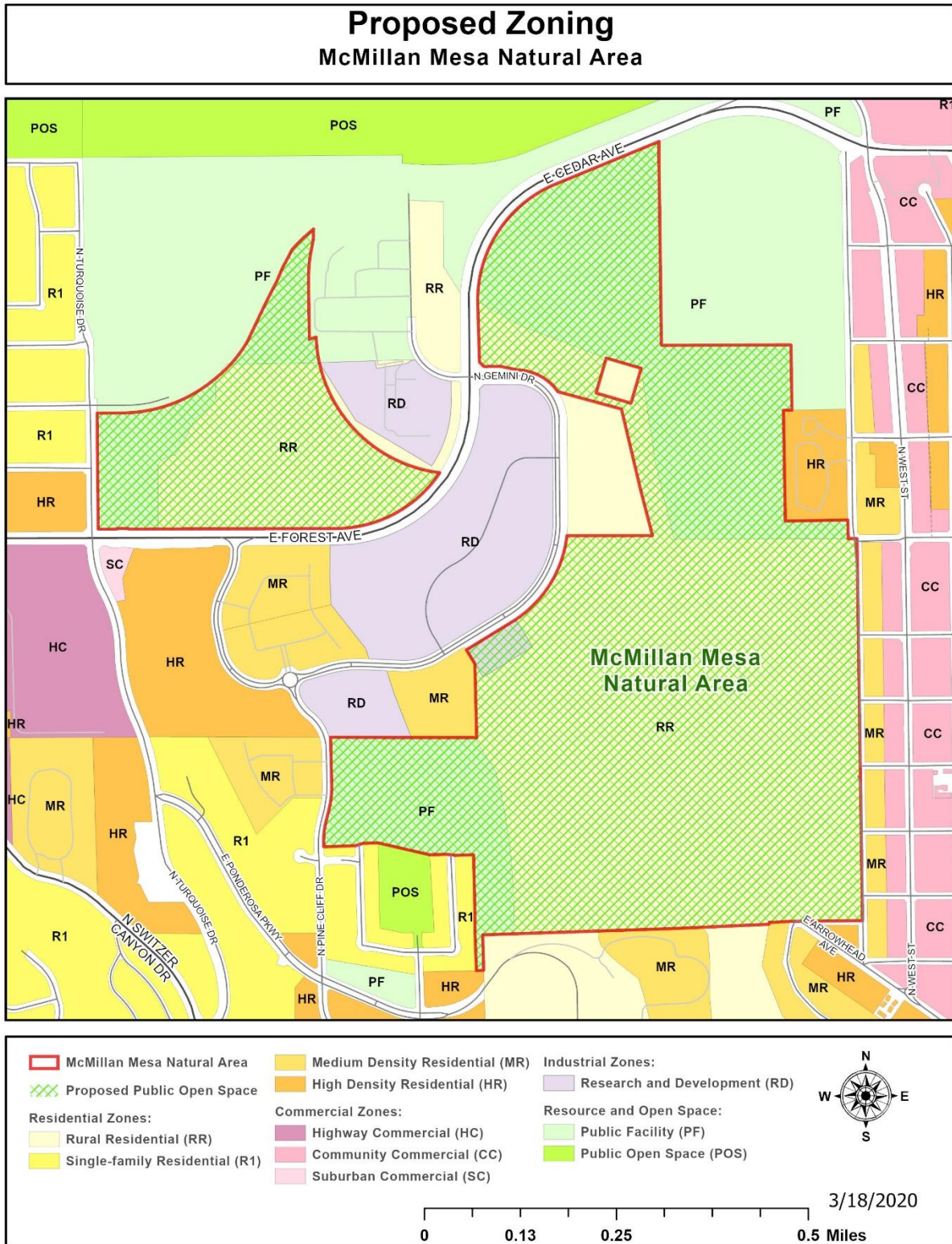
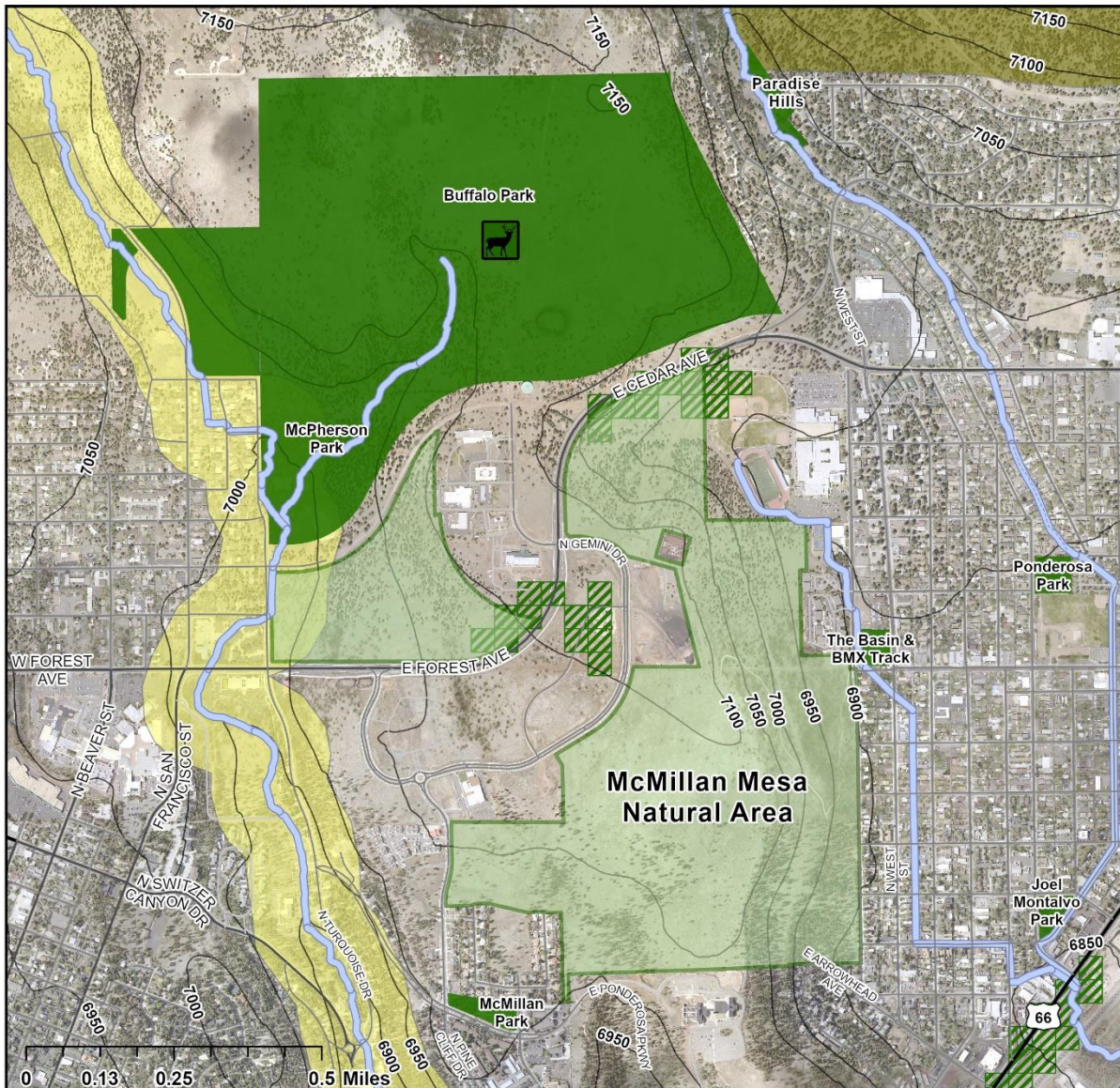


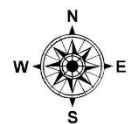
Figure 14: Proposed zoning designations for McMillan Mesa Natural Area and the surrounding vicinity as of 2019.

Natural Resources

McMillan Mesa Natural Area



-  Watchable Wildlife
-  Tributaries
-  Contours 50ft
-  Parks
-  Riparian Vegetation
-  Wildlife Linkages
-  Prairie Dog Colonies
-  McMillan Mesa Natural Area



3/18/2020

Figure 15: Significant Natural Resources: Wildlife, Vegetation, and Hydrology.

5.2 Natural Resources

Central to the overall management of McMillan Mesa Natural Area is the effective management of its natural resources. The water, wildlife, vegetation and geologic resources are important factors that supported permanent preservation of the property, and subsequently need to be managed and maintained appropriately to ensure they are not damaged. To ensure the protection of the biological, physical, and visual resources, specific management goals, policies, and actions have been identified. The natural resources present in the Natural Area have been mapped in Figure 15.

5.2.1 Water Resources

Summary of Current Conditions:

McMillan Mesa Natural Area does not encompass significant above-ground water resources. The property has very little designated floodplain and/or floodway (Figure 16), which are designated waterways that are regulated by the federal government and have strict requirements associated with any type of development, including trail development. A recent well-siting study completed for the City in 2018 provided reconnaissance-level information regarding active recharge on the mesa itself.⁵⁸ Geophysical survey results suggest that recharge is likely occurring on the flanks of the mesa, and not necessarily within the Natural Area parcels.

However, steep, forested slopes on the eastern edge of the Natural Area create the opportunity for erosion as a result of runoff. This slope is soft and rain events often result in sediment and mud running off the property. Drainage facilities at the bottom of the hill, west of Isabel Street, would capture and retain sediment, preventing it from flowing onto the street or adjacent FUTS trail.

In the summer of 2019, the Museum Fire burned the southeast side of the San Francisco Peaks. The drainage from the Mount Elden Dry Lakes area to the Rio de Flag drains just to the east of the Natural Area. Due to the intensity of the fire, the soil can hold less water during intense rain events, leading to a greater risk of flooding particularly during monsoon season (late-July to mid-August). While the flooding would not be concentrated on the Natural Area, the existing risk of run-off could add to the danger for neighborhoods farther down the floodplain such as Grandview, Sunnyside, and Greenlaw.

Recent research on the North American Monsoon points to changes that may affect Coconino County and Flagstaff. Warmer temperatures have expanded and intensified the monsoon ridge, resulting in fewer storms across Arizona during the peak of the monsoon season.⁵⁹ This generally has led to a decline in seasonal precipitation totals during the last 30 years (1980–2010).⁶⁰ Though there have been fewer storms, the most extreme storms have become more intense (as

⁵⁸ Clear Creek Associates, 2018, Well Siting Study Report Flagstaff, Arizona. Completed for the City of Flagstaff.

⁵⁹ Climate Profile, City of Flagstaff, 2018

⁶⁰ *Ibid*

measured by amount of precipitation and wind gusts). This change could lead to increased erosion and potential flooding. Though designated floodplains are rare on the property, any shallow ephemeral wetlands, even localized spring snow-melt ponds, are especially important in maintaining ecosystem health and biodiversity. These can support sedges, wildflowers, insects, and provide water for wildlife. They are a primary area for protection.

Management Goal: McMillan Mesa Natural Area will be managed to maintain or improve surface and ground water quality, surface water flow, ground water levels, and overall watershed health.

Management Policies: In addition to the general management policies guiding water resource management (outlined in Chapter 2.1.1), the following policies apply to the management of water resources within McMillan Mesa Natural Area:

- Support the City Parks Section to investigate possible solutions and the feasibility of designing a project for preventing wildlife crossings on Forest/Cedar Avenue that are related to the maintenance or improvement of surface water features to the north of Cedar Avenue in Buffalo Park.

Planned Management Actions: In addition to the general management actions guiding water resource management (outlined in Chapter 2.1.1), the following actions are planned within McMillan Mesa Natural Area:

- Work with City Stormwater Section to determine the need for stormwater treatments at the north end of North Hemlock Way.
- Work with Flagstaff Urban Trails System staff to ensure continuous maintenance of the FUTS drainage control structures within the natural area.
- Work with partners to assess possibility of implementing a revegetation plan on the eastern edge of the Natural Area where runoff occurs.
- Provide support to City Stormwater Section to determine the necessity and feasibility of constructing and maintaining a drainage basin near Izabel Street to capture and retain runoff from the slope.
- Provide support to Stormwater to assess the necessity and benefits of drainage facilities at the bottom of the hill, west of Izabel Street to capture and retain sediment, to prevent it from flowing onto the street or adjacent FUTS trail.

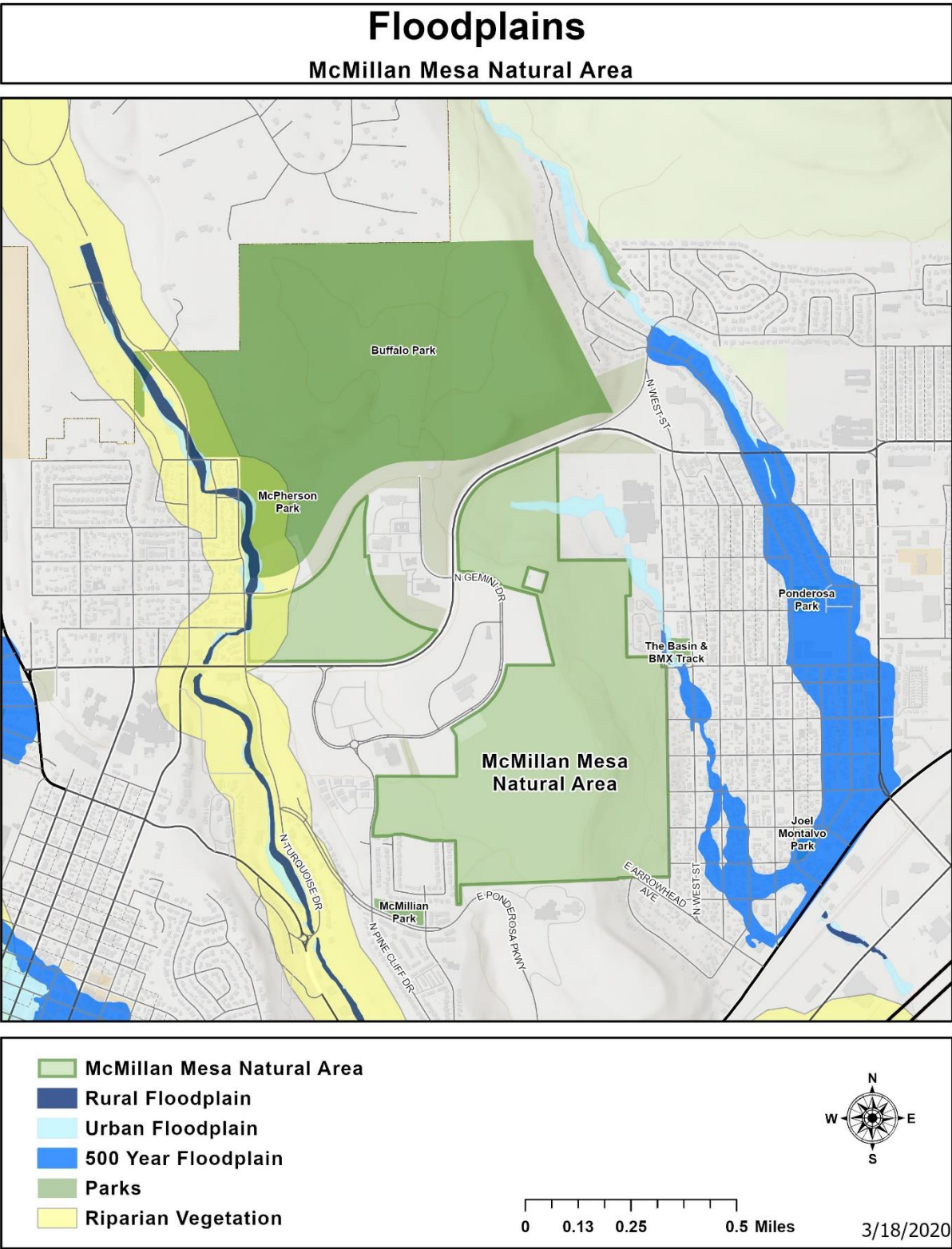


Figure 16: Designated floodplain within the vicinity of McMillan Mesa Natural Area.

5.2.2 Forest and Grassland Health

Summary of Current Conditions: The 300-acre McMillan Mesa Natural Area, in conjunction with the adjacent 215-acre Buffalo Park, preserves one of the last intact native grasslands within the City. The primary vegetation type is Arizona fescue/mountain muhly and the associated habitat type is montane meadow grassland. There are small patches of overstory comprised of ponderosa pine (*Pinus ponderosa*), Gambel oak (*Quercus gambelii*), and alligator juniper (*Juniperus deppeana*), but a significant amount of the vegetative biodiversity exists as native grasses, shrubs, cacti, and wildflowers. Some of the primary species include: muttongrass (*Poa fendleriana*), blue grama (*Bouteloua gracilis*), Arizona fescue (*Festuca arizonica*), black dropseed (*Sporobolus interruptus*), low rabbitbrush (*Chrysothamnus viscidiflorus*), Wood's rose (*Rosa woodsii*), wax currant (*Ribes cereum*), Indian paintbrush (*Casteilleja spp.*), buckwheat (*Fagopyrum esculentum*), and common sunflower (*Helianthus annuus*). Grasses, forbs, and shrubs provide important forage, cover, fawning, and nesting sites for the wildlife that use the area, thus contributing to the wildlife habitat of the Natural Area. The City plans to protect this grassland from tree encroachment, which can affect water and nutrient cycling, impact soil integrity, and affect wildlife habitat.

Vegetation plays a key role in the stability of soils. Efforts to maintain native plant populations should be a priority. Some erosion may result from natural runoff, yet when plants are damaged or void from terrain erosion greatly increases. The Terrestrial Ecosystem Survey classifies the soils within the Natural Area as a combination of rocky basalt and black cinder. The rocky basalt ecosystem type is described as rocky basalt surface soils with loam surface soils and clay loam subsoils. The black cinder ecosystem type is described as a dry, nitrogen-poor, sand-gravel, volcanic cinder soil. Results from the Well Siting Study⁶¹ suggest that these soil types are widespread across the mesa with no evident areas where recharge of surface water to the C aquifer is occurring. The geophysical information suggests conductive material occurs within the upper 100 feet of land surface, which is likely clay, a mix of rock and clay, or the fine-grained Moenkopi Formation. Soil development is very slow in the arid environment, particularly the weathering of basaltic parent material on young landforms.

Soil stability is susceptible to land use patterns such as recreation. McMillan Mesa is likely more durable to recreational activity in comparison to younger volcanic features in the San Francisco Volcanic Field, although it is vulnerable to compaction, unauthorized trails, and erosion on slopes. Barren areas are expected to develop in heavily used areas from pedestrian activity. Unregulated recreation will exacerbate erosion and soil loss and increase the presence of invasive plants.

The rocky outcrops and escarpments within the Natural Area support a number of species that do not occur elsewhere, including: side-oats grama (*Bouteloua curtipendula*), claret cup cactus (*Echinocereus triglochidiatus*), Apache plume (*Fallugia paradoxa*), mock pennyroyal (*Hedeoma oblongifolium*), pincushion cactus (*Mammillaria microcarpa*), and Arizona grape (*Vitis arizonica*).

⁶¹ Clear Creek Associates, 2018, Well Siting Study Report Flagstaff, Arizona. Completed for the City of Flagstaff.

There are also significant populations of invasive plants within the Natural Area. Invasive plants currently found within McMillan Mesa include: Scotch thistle (*Onopordum acanthium*), diffuse knapweed (*Centaurea diffusa*), dalmation toadflax (*Linaria dalmatica*), Russian olive (*Elaeagnus angustifolia*) and cheatgrass (*Bromus tectorum*). Additionally, squirreltail (*Elymus elymoides*) and western wheatgrass (*Pascopyrum smithii*) have become more prevalent within the Natural Area over the past decade. These are aggressive, invasive, drought-tolerant grasses with a strong potential to dominate the grassland ecosystem. Invasive plants are spread in a variety of ways, but wind and the disturbance associated with adjacent development are the primary sources of invasive weeds on the Mesa. Surveying the property for invasive plants and developing a Weed Management Plan are priorities.

The State of Arizona, U.S. Forest Service, and other land management organizations have identified multiple special status plant species within a 5-mile radius of McMillan Mesa Natural Area (Table 18).

Table 18: Special status plant species identified within a 5-mile radius of McMillan Mesa Natural Area.

Common Name	Scientific name	Identification agency
Ebony Spleenwort	<i>Asplenium platyneuron</i>	None
Fendler's Sandwort	<i>Eremogone fendleri</i>	None
Flagstaff Beardtongue	<i>Penstemon nudiflorus</i>	USFS
Flagstaff False Pennyroyal	<i>Hedeoma diffusa</i>	USFS, State
Green Death Camus	<i>Zigadenus virescens</i>	State
Hairy Clematis	<i>Clematis hirsutissima</i>	USFS, State
Intermountain Rubberweed	<i>Hymenoxys helenioides</i>	None
Mogollon Columbine	<i>Aquilegia desertorum</i>	State
Mountain Hollyfern	<i>Polystichum scopulinum</i>	None
Northern Maidenhair Fern	<i>Adiantum pedatum</i> = <i>A. aleuticum</i>	None
Rusby's Milkvetch	<i>Astragalus rusbyi</i>	USFS
Schultz Rough Whitlow Grass (Rough Draba)	<i>Draba asprella</i> var. <i>stelligera</i>	None
Seashore Cactus	<i>Opuntia martiniana</i>	None
Utah Bladderfern	<i>Cystopteris utahensis</i>	None

*None = no state or federal status.

The slope along the eastern and northwest portions of the Natural Area consists of overstory vegetation. The primary tree species include Gambel oak (*Quercus gambelii*), ponderosa pine (*Pinus ponderosa*), alligator juniper (*Juniperus deppeana*). These trees provide cover for the elk, deer, and other mammals that use the area and habitat for nesting songbirds.

The Flagstaff Fire Department (FFD) is responsible for implementing any forest health improvement projects, monitoring local conditions and determining whether the City will

implement fire restrictions, and responding to fire activity within the property. The FFD has a policy to immediately suppress all wildfires and ignitions in City limits including the Natural Area.

The FFD has conducted broadcast burning operations within the Natural Area in the past. The FFD also hand thinned the area during the mid-2000s to reduce small diameter trees and understory ladder fuels.

The Natural Area is bisected by several trails (see 5.4.2 Recreational Use). Trails can act as a firebreak, causing a gap in the vegetation to act as a barrier to slow or stop the progress of wildfire and could be used to hopefully reduce the size of a wildfire. General goals include maximizing the health of the Natural Area through implementation of thinning and broadcast burning operations. Properly maintained trails could be useful to conducting fire operations and could offset the cost of completing work.

Management Goal: McMillan Mesa Natural Area will be actively managed to achieve native forest and grassland structures that are resilient and resistant to wildfire, invasive plant populations, or other disturbances while continuing to provide ecosystem services to the surrounding community.

Management Policies: In addition to the general management policies guiding forest and grassland health management (outlined in Chapter 2.1.2), the following policies apply to the management of forest and grassland resources within McMillan Mesa Natural Area:

- Survey for sensitive plant species within the footprint of ground disturbing activities. If sensitive plant species are present, design projects to ensure these plants are protected.
- Protect the grassland from tree encroachment through hand thinning and/or broadcast burning.

Planned Management Actions: In addition to the general management actions planned for managing forest and grassland health (outlined in Chapter 2.1.2), the following actions are planned for McMillan Mesa Natural Area:

- Investigate the need to produce a self-guided brochure/native plant walk to introduce visitors to the native flora of the Mesa.
- Monitoring:
 - Work with San Francisco Peak Weed Management Area to survey the property for invasive weeds and develop an Invasive Weed Management Plan specific for the property.
 - Survey the property for rare and sensitive plant species to establish a baseline condition.
 - Establish photo monitoring points to track forest and grassland structure over time, including the spread of alligator juniper through the area grassland.
- Treatments:
 - Work to secure funding to manage non-native plant populations (e.g. Invasive Plant Grant from Arizona Department of Forestry and Fire Management).

- Coordinate with adjacent private landowners to treat any invasive weeds on their properties.
- Restore the vegetative community to support a balance of grasses to provide food and cover for wildlife such as ground nesting birds and prairie dogs throughout the year.
- Investigate incorporating adjacent parcels of privately-deed restricted dedicated open space held (e.g., area between N Manzanita Way and N Hemlock Way, parcel: 10128007F) into the McMillan Mesa Natural Area to improve management and maintenance of healthy grassland conditions.

5.2.3 Wildlife Resources

Summary of Current Conditions:

A variety of wildlife habitats within McMillan Mesa Natural Area and the adjacent Buffalo Park, support resident and migratory species. These habitats include grasslands, ephemeral wetlands (within Buffalo Park), ponderosa pine woodlands, and pine/oak woodlands, although the primary wildlife habitat is montane meadow grassland. This is an at-risk habitat type in the region.

Wildlife is one of the features that draws public use of the area, which includes a resident herd of mule deer and flocks of mountain bluebirds. The Gambel oaks and wax currants also provide good habitat for skunks, foxes, porcupines inhabiting the area.

Although the Natural Area provides habitat for mule deer and other species of wildlife, Cedar and Forest Avenues (Cedar/Forest) and expanding development to the south limit its utility as a wildlife corridor and pose a risk to wildlife trying to move through the area. Wildlife can become “bottlenecked” in the southern portions of the Natural Area without a clear path back to appropriate habitat. Additionally, Cedar/Forest serves as an obstacle for wildlife seeking forage within the grassy meadows of the Natural Area. There have been multiple collisions between vehicles and deer along Cedar/Forest within the vicinity of McMillan Mesa Natural Area.

Rocky outcrops are common in the Natural Area and provide unique cover and habitat for small mammals and reptiles. Minimizing ground disturbance to these features is important, especially as they are identified for their conservation value in the 2030 Regional Plan.⁶²

McMillan Mesa Natural Area is within Game Management Unit 11M. As of the 2018 Arizona Hunting Regulations, no hunting (including archery) is permitted within the Natural Area.

There are not any known, systematic wildlife surveys within the Natural Area. A 2017 query of the Environmental Review Tool⁶³ revealed a number of federally listed or sensitive species that are documented to occur within a 5-mile radius of the Natural Area (Table 19). These species may use the Natural Area at some point during their life cycle.

⁶² https://www.flagstaff.az.gov/DocumentCenter/View/49295/0-FullPlan_webreduced?bidId=

⁶³ [Environmental Review Tool](#), Arizona Game and Fish Department

Table 19: Special status animal species identified within a 5-mile radius of McMillan Mesa Natural Area.

Common Name	Scientific Name	Identification Agency
Allen's Lappet-browed Bat	<i>Idionycteris phyllotis</i>	FWS, USFS, BLM
Arizona Myotis	<i>Myotis occultus</i>	FWS, BLM
Arizona (Mountain) Treefrog	<i>Hyla wrightorum</i>	State
Bald Eagle	<i>Haliaeetus leucocephalus</i>	FWS, USFS, BLM, State
Big Brown Bat	<i>Eptesicus fuscus</i>	State
Greater Short-horned Lizard	<i>Phrynosoma hernandesi</i>	None
Gunnison's Prairie Dog	<i>Cynomys gunnisoni</i>	USFS, State
Many-lined Skink	<i>Plestiodon multivirgatus</i>	None
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	FWS, State
Northern Goshawk	<i>Accipiter gentilis</i>	FWS, USFS, BLM, State
Peregrine Falcon	<i>Falco peregrinus anatum</i>	FWS, USFS, BLM, State

*None = no state or federal status.

Gunnison's Prairie Dog. There are multiple Gunnison's prairie dog (*Cynomys gunnisoni*) colonies and burrows within the Natural Area, suggesting a sizable population (Figure 15). Gunnison's prairie dog is native to the shortgrass and mid-grass prairies, grass-shrub habitats in low valleys, and subalpine mountain meadows of the Colorado Plateau. Gunnison's prairie dogs are a keystone species for grassland ecosystems in the Southwest. They create habitat, provide food, and help keep the soil and plant communities healthy. In addition, their burrowing helps to aerate the soil, add organic matter, and help to increase water penetration. The species has experienced significant habitat loss due to urban expansion, grassland conversion, and development. Additionally, prairie dog populations are susceptible to sylvatic plague, a flea-transmitted disease, which has had devastating mortality impacts on colonies throughout the region and can potentially result in the loss of the colony when it arises. The U.S. Fish and Wildlife Service was petitioned to list the Gunnison's Prairie Dog as an endangered or threatened species⁶⁴ and to designate critical habitat. A 12-month review, published by the Service in November of 2013, chose to state that listing either *C. g. gunnisoni* or *C. g. zuniensis* or both was not warranted at that time. The Arizona Game and Fish Department lists the Gunnison's prairie dog as a non-game mammal. Overall, due to the sensitive nature of the species, and because threats against Gunnison's prairie dogs reverberate throughout the prairie dog ecosystem and greater environment, risks to the species need to be minimized.

American Kestrel. A resident population of American Kestrels (*Falco sparverius*) have been identified on the Mesa. Although the American Kestrel is relatively abundant in North America, count data from the USGS Breeding Bird Survey indicates that the North American breeding population is experiencing long-term, gradual, but sustained declines. Between 1966 and 2015 populations declined by about 50%. Current declines are related to continued clearing of land and the falling of the standing dead trees that birds depend on for nest sites. Nesting sites are

⁶⁴ Under the Endangered Species Act, 16 U.S.C. § 1531 et Seq.

further reduced by so-called “clean” farming practices, which remove hedgerows, trees, and brush from farmland. Pesticide use also affects kestrel survival rates. A larger problem with pesticides is that they destroy the insects, spiders, and other prey on which the birds depend. Exposure to pesticides and other pollutants can also reduce clutch sizes and hatching success. High levels of traffic disturbance and human development surrounding nesting sites are found to increase stress hormones that can lead to reproductive failure. Among successful nests, however, nestlings do not typically experience a higher stress response to environmental human disturbance, suggesting that they can tolerate some degree of human activity near the nest.

Management Goal: McMillan Mesa Natural Area will be managed to maintain and enhance a diversity of habitats that support native wildlife species. Emphasis will be placed on the protection of rare habitat types and special-status species.

Management Policies: In addition to the general management policies guiding wildlife resource management (outlined in Chapter 2.1.3), the following policies apply to managing wildlife resources within McMillan Mesa Natural Area:

- Design infrastructure so that it does not fragment, or significantly alter wildlife habitat and movement.
- Minimize disturbance
 - Minimize ground disturbance to rocky outcrops.
 - Construct and maintain trail systems and infrastructure to minimize erosion and disturbance to sensitive wildlife.
- Take comment and work with the Conservation Study Forum, Arizona Game and Fish Department, and City Parks Section to come up with possible solutions to prevent wildlife crossings on Cedar/Forest Avenue.
- Prairie dog policies for large-scale ground disturbing activities:
 - Survey and map colonies on the entire Natural Area in partnership with local organizations (e.g. Habitat Harmony).
 - Monitor the incidence of plague throughout the Natural Area and when detected, implement the following actions: 1) work with the Arizona Game and Fish Department to notify the public, 2) increase monitoring effort to identify extent of outbreak, 3) where and when appropriate and feasible, implement mitigation measures such as dusting burrows to kill fleas.

Planned Management Actions: In addition to the general management actions planned for managing wildlife resources (outlined in Chapter 2.1.3), the following actions are planned for McMillan Mesa Natural Area:

- Investigate installing infrastructure along Cedar/Forest Avenues to alert drivers to nearby elk (e.g. motion-sensor alert system triggered when a collared animal enters the area).
- Investigate installing additional signs along Cedar/Forest Avenues to minimize wildlife collisions in coordination with Arizona Game and Fish Department.
- Work with the Flagstaff Kestrel Project to install nesting boxes and monitor the American Kestrel population.

5.3 Cultural and Historic Resources

Summary of Current Conditions:

There are multiple evidences of cultural and historic resources within and surrounding McMillan Mesa Natural Area. Formal archaeological surveys have been completed within some of the Natural Area. One survey at the request of Design Master Homes, Inc. was completed on a 13-acre portion of Sec. 15, T21, R73, in August of 1976. In 1980, in preparation of the land exchange between the City and Coconino National Forest, another was performed to ensure no effect to cultural resources. During the survey, remnants of the Knob Hill Ranger Station was identified, and an archaeological site consisting of approximately 70 to 100 lithic flakes. Another survey, as part of the Gemini Parkway Study, was conducted by the Museum of Northern Arizona in October 1984, recording fifteen archaeological sites, ten prehistoric sites dating primarily to the early eleventh century and five historic sites that dated from the early 1930s to 1957.

These studies have uncovered multiple cultural resources, including petroglyph panels which may be of Cohonina or Northern Sinagua origin. There are also evidences of grinding slicks in the area around this petroglyph panel. Additionally, a lithic scatter of approximately 70-100 flakes was in the area but was deemed to be ineligible for the National Register of Historic Places by the Coconino National Forest and State Historic Preservation Office in 1981.

Additionally, the Beale Wagon Road⁶⁵ travelled through the area. The 35th Parallel Route was surveyed for placement of a wagon road in 1851 by Lorenzo Sitgreaves and company; and again, by Amiel Weeks Whipple in 1853, this time for feasibility of a railroad. Edward Fitzgerald Beale and company were commissioned (famously using camels) by the government to physically build a wagon road along this route in 1857/1858. The Beale Wagon Road provided cross-country wagon travel along the 35th parallel as a means of connecting Fort Defiance in Ohio to the Mohave Trail in California. This was a primary access road until the 1880s, when the transcontinental railroad was built through northern Arizona, providing a better form of travel.

The wagon road often exists as an eroded trough across the land, cut by the hooves of thousands of animals and the iron-rimmed wheels of many wagons and stagecoaches. Portions of Cedar Avenue seem to follow the alignment of the Beale Wagon Road, and a portion of the Wagon Road travelled through the northern portion of the McMillan Mesa Natural Area that is west of Northern Arizona Center for Entrepreneurship and Technology (NACET) and US Geological Survey (USGS) and east of McPherson Park.

The portion of the Beale Wagon Road through the Petrified Forest National Park was listed on the National Register of Historic Places in 1977 given its significance to discovery, settlement, and transportation. The Coconino National Forest manages the roadway on their property as eligible for listing on the National Register of Historic Places.

⁶⁵ Also known as the Beale Camel Road or 35th Parallel Route.

A malpais/red sandstone quarry was located at the southern tip of McMillan Mesa. Although not located within the boundary of the Natural Area, the quarry provides historical context for the area and Flagstaff's history. This rock was used to build many of the historic structures in that area of town. Other quarries were located closer to downtown.

Management Goal: McMillan Mesa Natural Area will be managed to preserve, protect, and interpret the cultural and historic resources present on the property.

Management Policies: In addition to the general management policies guiding cultural and historic resource management (outlined in Chapter 2.2), the following policies apply specifically to managing cultural and historic resources within McMillan Mesa Natural Area:

- Identify cultural resources to ensure no facility and/or improvements come in conflict with the preservation of resources.

Planned Management Actions: In addition to the general management actions planned for managing cultural and historic resources (outlined in Chapter 2.2), the following actions are planned for McMillan Mesa Natural Area.

- Complete a cultural survey of the Natural Area to identify cultural resource locations.
- Consider developing interpretive materials for the Beale Wagon Road, Knob Hill Ranger Station, Forest Service land exchange, etc.

5.4 Public Use

McMillan Mesa Natural Area is open year-round to varying levels of public use. The Natural Area is managed to provide passive outdoor recreational and educational opportunities, including hiking, snow shoeing, wildlife watching, and nature study/environmental education, in addition to others (Table 20). Though the Natural Area is closed to overnight camping, star gazing and night walking are permitted. Motorized travel is prohibited within the property in order to protect the unique conservation values, except on official designated streets.

The Open Space Program believes that research and education are important uses of legally-designated open space. If interested in using McMillan Mesa as a test site for a research project or other educational program or project, please contact the Open Space Program at NaturalAreas@flagstaffaz.gov.

Table 20: Permitted and prohibited recreational uses of McMillan Mesa Natural Area.

Permitted Uses	Prohibited Uses
Cross Country Skiing	Campfires
Virtual geocaching	Camping
Hiking/Running	Fuelwood collection (except with permit)
Snow Shoeing	Off highway vehicles/driving
Mountain Biking	Hunting
Nature Study/Environmental Education	Firearm use
Wildlife Watching	Flying model aircraft, such as drones, airplanes, or rockets (except with permit)
Stargazing	Large-scale activities/events (except with express written approval from the Open Space Specialist)
	Horseback riding

This chapter outlines the management goal, policies, and actions identified for managing public access and roads, recreational use, easements and leases, education and research, and facilities within McMillan Mesa Natural Area.

5.4.1 Access Management

Summary of Current Conditions:

There are significant opportunities for non-motorized access to McMillan Mesa Natural Area via FUTS trails from surrounding neighborhoods, including Switzer Ridge/Mesa, McMillan Mesa Village, and Sunnyside. Many of these trails traverse the Natural Area, cross Cedar/Forest Avenue, and continue into Buffalo Park.

There are several roads that provide motorized access adjacent to the Natural Area, including Gemini Road, Forest Avenue, Cedar Avenue, and Pine Cliff Drive. However, the only existing designated public parking area is located at the entrance to Buffalo Park on Gemini Road. Currently, the Buffalo Park parking area has approximately 45 parking spaces, year-round bathroom facilities, and water during seasonal allowance. The parking area is managed and maintained by the Parks Department.

Public transportation to the Natural Area exists via the Northern Arizona Intergovernmental Public Transportation Authority (NAIPTA) Blue Line. As of December 2018, NAIPTA operates six bus stops along Cedar/Forest Avenue and Gemini Road to provide access for individuals wanting to visit McMillan Mesa Natural Area.

The Natural Area itself is a non-motorized recreational area. The City and its contractors can use FUTS trail alignments and other rights-of-way for motorized access throughout the Natural Area for administrative purposes (e.g. maintaining infrastructure).

Management Goal: McMillan Mesa Natural Area will be managed to ensure reasonable public access for non-motorized recreational activities and eliminate unauthorized motorized travel within the property.

Management Policies: In addition to the general policies guiding public access to and roads within McMillan Mesa Natural Area (outlined in Chapter 2.3.1), the following policies:

- Consider impacts associated with neighborhood versus public access when planning access points for the Natural Area.
- Utilize FUTS trails and other Rights-of-Way (ROWs) to access and complete administrative tasks (e.g. maintaining recreational and utility infrastructure).
- Roads already developed for utility access should be managed to minimize disturbance to native vegetation and prevent the spread of invasive plants.

Planned Management Actions: In addition to the general management actions planned for managing public access and roads (outlined in Chapter 2.3.1), the following actions are planned for McMillan Mesa Natural Area.

- Parking
 - Work with Parks to investigate the possibilities of maintaining and/or improving the Buffalo Park parking lot to accommodate users of both Buffalo Park and McMillan Mesa.
 - Investigate opportunities to address public parking for the natural area.
 - Work with BASIS School to discourage parking at N Manzanita Way and N Hemlock Way that is not related to the use of the natural area.
- Investigate the potential of constructing an additional pedestrian bridge across Forest Avenue near Turquoise Drive to connect the north side of Forest Avenue (Buffalo Park/McPherson Park) to McMillan Mesa Natural Area. This would create several loop trail opportunities, enhancing opportunities for running and biking events (e.g. 3K, 5K, 10K loops). While this recommendation is not presently included in the current FUTS Master Plan, it will be incorporated into future FUTS Master Plans for consideration.
- Flagstaff Urban Trail System (FUTS)
 - Finalize Beale Trail alignment to enhance non-motorized access from the northwest, as outlined in the FUTS Master Plan.
 - Investigate opportunities to work with FUTS to achieve accessible and/or ADA compliant access and trails.
- Evaluate unauthorized access points from Izabel St and determine management direction.
- Consider installation of boundary signs in appropriate areas to educate the public about the non-motorized regulations.
- Work with APS to restore soil and vegetation surrounding their parcel.

5.4.2 Recreational Use

Summary of Current Conditions:

The Natural Area receives a significant amount of public use from Flagstaff residents and visitors. Trails from surrounding neighborhoods and additional access allows visitors to participate in activities including, hiking, jogging, bike riding, cross-country skiing, snowshoeing, and wildlife watching (Table 20). The Natural Area, combined with the adjacent Buffalo Park, provides visitors a sense of peace and quiet within the City center.

One of the two primary goals of the Campaign for a Greater Buffalo Park effort was preserving opportunities to recreate within the urban environment and establish a “neighborhood” to be a buffer of natural communities for adjacent neighborhoods.

The second primary goal of the Campaign for a Greater Buffalo Park effort was preserving the expansive viewsheds of the San Francisco Peaks. Views of the peaks and other visually prominent features express the true nature of the city. These ‘mountain town’ views are important to maintain the character of the city, create a healthy environment to spend time in, and stimulate communities’ economic wellbeing.

Prior to the Natural Area’s preservation, most use occurred here by default rather than under planned management. With increasing numbers of people using the neighborhood, more management is necessary. Increased neighborhood involvement and stewardship can help create and maintain the natural character and facilities of this Natural Area.

Existing Trails⁶⁶ (Figure 17):

- **Arrowhead Trail (FUTS⁶⁷, Adopt-A-FUTS⁶⁸)**
- **Arizona Trail (FUTS)** – A portion of the 800-mile trail that traverses from the Mexico to Utah borders is located on the property. A 30-foot-wide trail easement was established with neighboring landowners, including the San Francisco De Asis Roman Catholic Parish. The Flagstaff passage runs north and south through the middle of Flagstaff, starting south of town and traveling over McMillan Mesa and through Buffalo Park. This section of the Arizona Trail is a maintained walking trail with an improved surface of mostly gravel. The trail is maintained by the City Parks Department and Arizona Trail Stewards. Any modifications to the Arizona Trail require coordination with the Arizona Trail Association and FUTS staff.

⁶⁶ Many of the trails are included in the Flagstaff Urban Trails System (FUTS). The FUTS Master Plan can be viewed [online](#).

⁶⁷ FUTS trails are non-motorized, shared-use pathways utilized by bicyclists, walkers, hikers, and runners for recreation and transportation. All FUTS trails are primarily managed by the City Parks Department.

⁶⁸ The Adopt-A-FUTS program is managed by the Community Stewards program within the Sustainability Section of the City. The program allows community groups and individuals to adopt a trail section by committing to perform 3 cleanups per year.

- ***Cedar Trail (FUTS, Adopt-A-FUTS)***– A pedestrian/commuter trail that is parallel to Cedar Avenue but buffered from the road by a band of “open space”. It crosses over McMillan Mesa along the south side of Cedar and Forest Avenues from Turquoise Drive to West Street. Going over the Mesa means there are steady and at times very steep climbs from both ends of the trail. Approximately half of the trail is concrete (the portion west of pedestrian bridge), while the other half is constructed with an aggregate material (the portion east of pedestrian bridge).
- ***McMillan Mesa Trail (FUTS, Adopt-A-FUTS)*** – A recreational trail traveling east-west across McMillan Mesa Natural Area, connecting the Sunset Trail just west of the Natural Area to the Arizona Trail within the eastern portion of the Natural Area.
- ***Mesa Ridge Trail (FUTS, Adopt-A-FUTS)*** – A recreational 0.3-mile recreational FUTS trail connecting Cedar Trail to McMillan Mesa Trail. The trail is constructed with aggregate material and is relatively flat with very little elevation change.
- ***Sego Lily Trail (FUTS, Adopt-A-FUTS)*** – This unpaved, 0.64-mile trail climbs the east slope of McMillan Mesa, and provides access to open space between Izabel St./Sixth Ave. and the Arizona Trail. It is especially important to providing access for the Sunnyside neighborhood.
- ***Sunset Trail*** – A connector trail along the top of the cliff at the west edge of McMillan Mesa. There may be a future opportunity to bridge Cedar Avenue to continue the trail north to the Switzer Canyon Trail. The existing portion is 0.60 miles, with 0.14 miles planned, for a total length of 0.74 miles.
- ***Switzer Canyon Trail (FUTS, Adopt-A-FUTS)*** – A recreational trail located on an old roadbed that was the previous alignment for Cedar Avenue. When Forest Avenue was built over McMillan Mesa, this section of Cedar Avenue was abandoned and converted into a trail. When complete, this trail will allow users to travel from downtown Flagstaff to Buffalo Park while crossing only two major streets. The portion of Switzer Canyon Trail north of Forest Avenue is an aggregate-surfaced trail, while the portion of the trail south of Forest Avenue is concrete. Construction of the missing segment, which is outside the boundary of McMillan Mesa Natural Area, from Terrace Avenue to Switzer Canyon Road, is anticipated in 2019.

Planned Trails:

- ***Quarry Trail*** – This trail will follow the forest hillside on the southwest corner of McMillan Mesa, from the Arizona Trail to the Switzer Canyon Trail. Upon completion, total length will be 0.85 miles. The east end of the trail overlooks an historic quarry, which is the source of the iconic red Moenkopi sandstone used in numerous buildings in Flagstaff and elsewhere.

Management Goal: McMillan Mesa Natural Area will be managed to provide a wide variety of developed and dispersed day-use recreational opportunities.

Management Policies: In addition to the general policies guiding recreational use (outlined in Chapter 2.3.2), the following policies apply to managing recreational use of McMillan Mesa Natural Area:

- Limit developed recreation opportunities to preserve the scenic resources.
- Provide ADA-accessible recreational opportunities within current trails.
- Manage dispersed recreation to minimize soil compaction and impacts to wildlife forage.

Planned Management Actions: In addition to the general management actions planned for managing recreational use (outlined in Chapter 2.3.2), the following actions are planned for McMillan Mesa Natural Area:

- Investigate options to realign the steep section of the Cedar Trail to enhance public safety.
- Calculate existing unauthorized trail alignments for inclusion/exclusion in the trail system as connector trails to the existing FUTS network.
- Investigate the need for design and installation of interpretive signs throughout the Natural Area describing the ecological importance of grasslands and forest succession of the Natural Area.
- Design and construct ADA compliant trails within the Natural Area.

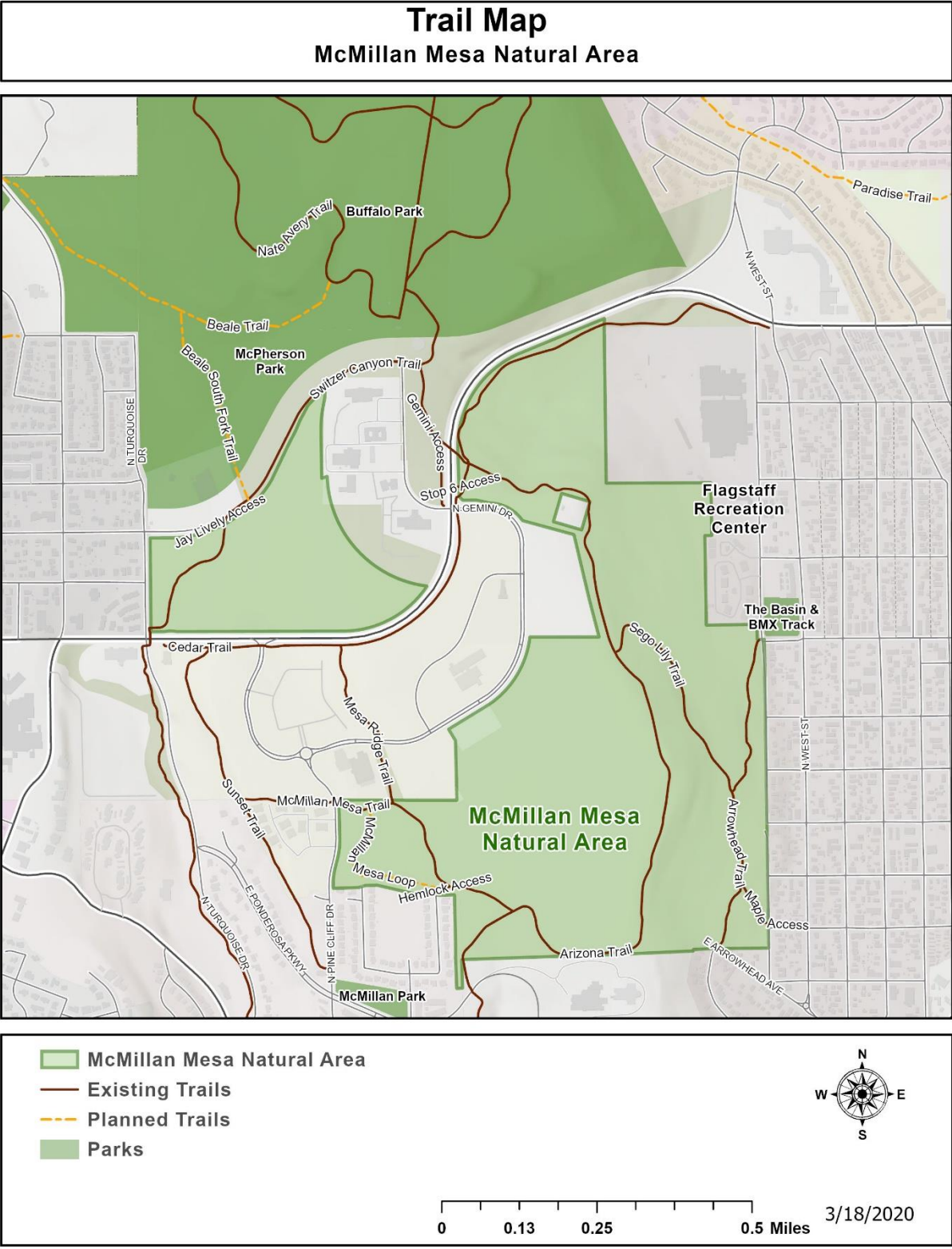


Figure 17: Existing and planned trails within the vicinity of McMillan Mesa Natural Area.

5.4.3 Easements and Leases

Summary of Current Conditions:

There are existing easements within and adjacent to the Natural Area, as well as utilities that cross the Natural Area that do not have easements. Many easements are under current roads. Given the amount of private and residential development surrounding the Natural Area, existing infrastructure is primarily for utilities and water (including water lines and water valves), which the City of Flagstaff holds rights to. An official easement assessment has not yet been conducted for the Natural Area.

Existing waterlines that run through the McMillan Mesa Natural Area will need to be accessed for work. City Water Services will work with Open Space to ensure that the Natural Area is properly managed and restored to open space standards in the event of any impacts. Per City of Flagstaff engineering standards and City Code, no infrastructure (buildings, bathrooms, fences, walls, etc.) can be built on top of or within 10 feet of a public water main.

Given that this property has been under City ownership since trading for it in 1959 from the National Forest Service, there may be utilities crossing the property that do not have easements, as it would have been unnecessary for the City to obtain an easement from itself at the time. All existing utilities are required to be managed to prevent or minimize impacts and to fully restore any effects from operations. This requires the use of appropriate tools and the development of management strategies to limit impacts and restore impacts to Open Space standards.

In 1969, the City established a scenic easement over much of the greater McMillan Mesa area to protect the natural features of the property.⁶⁹ This easement covered much of the Natural Area boundary, including Buffalo Park and much of the private property to the southwest. The scenic easement was abandoned in 1992 through Ordinance 1783. The next iteration of this type of protection is the Specific McMillan Mesa Village Plan⁷⁰, which set height restrictions specific for every Tract, including a 45-foot maximum building height.

Future development on private parcels on McMillan Mesa (outside of the Natural Area boundary) will tie in with existing water utility infrastructure. The City does not anticipate needing to construct or install additional water lines in the area but does need to ensure access for maintenance of existing infrastructure.

When the veteran facility is constructed it will be necessary for the City to investigate alternatives to complete the project without ground disturbance in the protected Natural Area. Additionally, there is a planned gravity sewer line in which one of the proposed alternatives could cross through the northwestern section of the Natural Area. Alternative solutions will need to be considered by the City to prevent impacts to the Natural Area.

⁶⁹ Flagstaff City Ordinance 744, 1969

⁷⁰ <https://www.flagstaff.az.gov/DocumentCenter/View/45052/McMillan-Mesa-Village-Specific-Plan?bidId=>

To meet future access needs, Open Space will encourage all easement access through any existing easements. New easement requests, including access to existing utilities that do not have easements, will be reviewed by Open Space staff and if found appropriate will be forwarded to the Flagstaff City Council for approval and adoption of the appropriate ordinance. This includes all projects not directly related to the management of the Natural Area. Furthermore, any projects approved that could alter the McMillan Mesa Natural Area will need to provide solutions that restore the property to an improved condition. Projects directly related to the administration of the Natural Area, such as facility improvements or resource management, will be reviewed by Open Space staff. If the task is found appropriate for the management of the property, a project plan addressing potential and unintended changes to ensure the property is fully restored at the completion of the project must be finished before implementation can occur.

Management Goal: Manage McMillan Mesa Natural Area for non-consumptive, sustainable uses.

Management Policies: In addition to the general policies applicable to managing easements and leases in Chapter 2.3.3, the following policies apply to managing easements and leases within McMillan Mesa Natural Area.

- City Water Services Department are to retain access for maintenance and improvements to their water infrastructure.
- Encourage future utilities to be below ground to protect the scenic values of the property, while minimizing other impacts. This requires the use of appropriate tools and the development of management strategies to limit impacts and restore the area to Open Space standards, in many circumstances requiring multi-year commitments.
- Use existing easements and reservations to the extent practical.
- Address new and existing utilities to prevent or minimize visual impacts, noise pollution, light pollution, ground disturbance, vegetation disturbance, interference with wildlife, conflicts with approved recreation, and other environmental impacts.

Planned Management Actions: In addition to the general management actions planned for managing easements and leases in Chapter 2.3.3, the following actions are planned for McMillan Mesa Natural Area.

- Ensure that ground-disturbing activities associated with easements and leases are coordinated with the Open Space Program to preserve resources and improve the condition of the Natural Area.
- Conduct an easement assessment for the Natural Area to generate a complete list of easements and licenses for the property.

5.4.4 Education and Research

Summary of Current Conditions:

The abundance of educational opportunities in the immediate area is a testament to the educational and research opportunities available within the McMillan Mesa Natural Area. Since 1990, the Flagstaff Festival of Science has worked to connect and inspire the citizens of Northern Arizona, with the wonders of science and the joy of scientific discovery. In partnership, the City of Flagstaff utilizes Buffalo Park as an outdoor classroom, using the space to host astronomy programs and night sky viewings. Throughout the year, several additional events are hosted in the area, including Lights Out Flagstaff and Arizona Trail Days.

McMillan Mesa's preservation is an important contribution to education. Grasslands are in decline due to detrimental development, agriculture, and other land use practices that have isolated them from other grasslands. Additionally, grasslands are in danger from shrub encroachment, which has affected over 35,200 km² (8.7 million acres) of grasslands across the nation.⁷¹ McMillan Mesa provides a unique opportunity to further understand these endangered ecosystems.

McMillan Mesa's urban location and proximity to educational institutions make it a good fit for the biological studies of species, environmental investigations, and opportunities to visit the property to learn about land management and urban planning. Coconino High School is near the northeast, BASIS Flagstaff Charter School to the east, and the Montessori Charter School of Flagstaff to the south. Also, within walking distance is the Peak School, Killip Elementary School, and Pine Forest Charter School.

Management Goal: McMillan Mesa Natural Area will be managed to provide diverse educational and research opportunities.

Management Policies: Policies applicable to managing education and research opportunities within McMillan Mesa Natural Area are outlined in Chapter 2.3.4.

Planned Management Actions: In addition to the general management actions planned for managing education and research in Chapter 2.3.4, the following actions are planned for McMillan Mesa Natural Area:

- Collaborate with adjacent schools to use the Natural Area as an outdoor classroom for their students.

⁷¹ Nielson, J., Reeves, K., and Thomas, L. 2010. "[Grasslands of the American Southwest – Introduction and Grassland Types](#)." Southern Colorado Plateau Network Inventory and Monitoring Program.

5.4.5 Facility Development

Summary of Current Conditions:

Because of the fragile characteristics of soil, the construction of facilities can have a negative impact on ecological succession, native plant populations, and soil retention and development. Facility development should avoid construction on steep terrain and ecologically sensitive areas. Locations with well-established native plant populations should be avoided for facility and infrastructure development, as they stabilize the soil and form nutrient-rich organic matter. Facilities result in greater soil compaction and reduced water infiltration, while persistent foot traffic along steep slopes can exacerbate erosion rates.

McMillan Mesa is important for dark night sky preservation. The City was recognized as the world's first International Dark Sky City on October 24, 2001, for its pioneering work in the development and implementation of lighting codes that balance the need to preserve Flagstaff's dark sky resource with the need for safe lighting practices. The purpose of this division is to help assure that dark skies remain a resource to be enjoyed by the Flagstaff community and its visitors, and to provide safe and efficient outdoor lighting regulations that protect Flagstaff's dark skies from careless and wasteful lighting practices. Dark starry nights, like natural landscapes, forests, clean water, wildlife, and clear unpolluted air, are valued in many ways by the residents of this community, and they provide the natural resource upon which our world-renowned astronomical industry depends.

Current facilities within McMillan Mesa Natural Area are primarily focused on the extensive FUTS trail network within the area, including trail signs and other trail-related infrastructure (e.g. trash cans, benches). From the McMillan Mesa usage survey, Open Space received over 400 responses. Overall most people indicated that they prefer developments/improvements be minimized and that the property be kept as natural as possible. Most responses indicated that infrastructure such as signage, trails, parking and restrooms be minimal, and that emphasis be placed on maintaining the health and preservation of the ecosystem.

Management Goal: McMillan Mesa Natural Area will be managed to provide facilities that enhance visitors' experiences.

Management Policies: In addition to the general policies applicable to developing facilities in Chapter 2.3.5, the following policies apply to McMillan Mesa Natural Area:

- New facilities must follow night sky City Code 10.50.70.
- Focus and cluster facilities to areas that are already developed (e.g. along Gemini, near Apple, by USGS) to reduce impacts to the interior portion of the Mesa.
- Design facilities with colors and materials that blend in with the landscape.

Planned Management Actions: In addition to the general management actions planned for developing facilities in Chapter 2.3.5, the following actions apply to McMillan Mesa Natural Area:

- Design and install minimal signage, such as boundary signs, regulatory signage, trail signs, directional signs, orientation kiosks, and interpretive signs for key locations in the Natural Area.
- Investigate the need for benches throughout the Natural Area to encourage passive use of the property.
- Investigate opportunities to work with FUTS to improve some trails to achieve ADA compliant access and trails.
- Investigate need for recycling and trash facilities to provide at the primary trailhead and opportunities to partner with Parks.
- Investigate need for bathroom facilities and opportunities to partner with Parks to provide portable toilets.

5.5 Priority Action Plan

Provided below is a summary of priority actions that will be taken related to the expansion, development, and management of the Natural Area. It is anticipated that this Priority Action Plan will be updated every two years. The biannual review will be conducted in advance of the City of Flagstaff's budget development process. Modifications to the plan will be made to reflect existing conditions at the time of each update.

Table 21: McMillan Mesa Priority Action Plan – Facility Development

Action:	Responsibility:	Implementation Date:	Estimated Cost:
Install dog waste bag dispenser at primary access points.	City of Flagstaff	Summer 2020	\$2,000
Provide support to City Stormwater Section to determine the necessity and feasibility of constructing and maintaining a drainage basin near Izabel Street to capture and retain runoff.	City of Flagstaff	Summer 2020	\$0
Install minimal trail orientation signage.	City of Flagstaff	Spring 2021	\$1,000
Install minimal interpretive signage.	City of Flagstaff	Summer 2021	\$5,000
Install minimal orientation kiosks.	City of Flagstaff	Summer 2021	\$5,000
Investigate opportunity to install a welcome sign on Arizona Trail bridge.	City of Flagstaff	Summer 2021	\$5,000
Investigate potential partnering opportunities to provide parking access.	City of Flagstaff	Summer 2021	\$50,000
Investigate potential partnership with Parks to install “pit” toilets at primary trailhead.	City of Flagstaff	Summer 2021	\$100,000
Work with FUTS to complete the trail plan.	City of Flagstaff	Summer 2021	\$10,000
Decommission and revegetate unauthorized trails and roads not designated as part of planned trail system.	City of Flagstaff	Summer 2022	\$10,000
Investigate better connectivity of trails between Buffalo Park and McMillan Mesa.	City of Flagstaff	Summer 2022	\$5,000
Investigate partnership with Parks to maintain trash and recycling receptacles at primary trailhead.	City of Flagstaff	on-going/ monthly	\$5,000
Utilize volunteers and partner organizations to complete area monitoring and trail maintenance.	City of Flagstaff	on-going/ monthly	\$0

Table 22: McMillan Mesa Priority Action Plan – Resource Management

Action:	Responsibility:	Implementation Date:	Estimated Cost:
Develop trail maintenance standards and schedules.	City of Flagstaff	Summer 2020	\$0
Establish cultural resource baseline documentation.	City of Flagstaff, with volunteers	Summer 2020	\$18,000
Secure sustainable funding for ongoing, appropriate maintenance.	City of Flagstaff	Summer 2020	\$30,000/year
Complete rezone application to rezone the property to Public Open Space.	City of Flagstaff	Fall 2020	TBD
Conduct reptile and amphibian surveys.	AGFD with volunteer assistance	Summer 2021	Unknown
Conduct wildlife surveys for endangered and special-status species.	City of Flagstaff with AZGFD assistance	Summer 2021 and then as needed	\$5,000
Restore soil and vegetation surrounding APS parcel.	City of Flagstaff and APS	Summer 2021	\$3,910
Survey the property for user-created (unauthorized) roads and trails.	City of Flagstaff	Summer 2021	\$3,500
Conduct noxious plant surveys and maintain map of occurrence locations.	City of Flagstaff and volunteers	On-going	\$3,000/annum
Develop and maintain plant and animal species observation database.	City of Flagstaff and volunteers	On-going	\$0
Monitor insect and disease occurrences.	City of Flagstaff	On-going	\$0
Utilize volunteers and partner organizations to conduct trash clean ups.	City of Flagstaff	On-going	\$0
Treat invasive weeds biannually.	City of Flagstaff	Bi-Annually	\$3,000/annum
Coordinate with Flagstaff Fire Department and Arizona State Forestry to complete forest health improvement projects.	City of Flagstaff	Variable	\$0

Table 23: McMillan Mesa Priority Action Plan – Partnerships

Action:	Responsibility:	Implementation Date:	Estimated Cost:
Document rock art and other cultural resources.	City of Flagstaff with volunteers	Winter 2020	\$18,000
Partner with the Flagstaff Kestrel Project to install nesting boxes and monitor the American Kestrel population.	City of Flagstaff and Flagstaff Kestrel Project	Summer 2020	\$0
Work with City Streets to investigate installing additional signs along Cedar/Forest Ave. to minimize wildlife collisions.	City of Flagstaff with AZGFD assistance	Fall 2022	Unknown
Maintain communication with adjacent landowners regarding projects and events at the Preserve.	City of Flagstaff	On-going	\$200/ annum
Manage Site Stewards Program in partnership with Arizona State Parks.	City of Flagstaff	On-going	\$0
Conduct meeting with Northern Arizona University representatives regarding on-site natural resource research work.	City of Flagstaff	Annually	\$500/ annum
Establish informal agreements with private organizations and volunteer groups related to annual bird surveys.	City of Flagstaff	Update/renew annually	\$0
Confirm existing agreements and/or establish new agreements with AZGFD regarding annual mammal and reptile/amphibian surveys.	City of Flagstaff	As needed	\$0

Completed Priority Actions:

- Amend the Regional Plan and Zoning Code to reflect the outcomes of Proposition 413 (Winter 2019)
- Establish formal Volunteer/Docent Program for the Natural area (Winter 2019)

Chapter 6: Complementary Open Space Properties

Complementary Open Space properties are generally smaller than the regional preserves described in Chapters 3-5. These properties add to the user experience and provide additional value to the existing system of Open Spaces through providing buffers, protecting viewsheds, or improving trail transit and recreational opportunities. The general management goals, policies, and actions outlined in Chapter 2 apply to all Complementary Open Space Properties. Below are the special considerations for each property.

6.1 Schultz Creek Trailhead and Natural Area

6.1.1 Property Overview

The Schultz Creek Trailhead and Natural Area is a 20-acre legally-designated open space property⁷² located east of the intersection of Schultz Pass and Mount Elden Lookout roads. The legal description of the parcel is as follows: East half of the SE Quarter of the SW Quarter, Section 33, Township 22N, Range 7E of the Gila and Salt River Meridian, Coconino County, Arizona. The property is in a minimally developed area with adjacent federal and private property (Figure 18).

In 1898, the City of Flagstaff's first water reservoir was created through a contract with the Santa Fe Pacific Railroad that leased the land in exchange for City water infrastructure connecting springs on the San Francisco Peaks to the lumber and railroad industries and the town. The land and water rights were deeded to the City in 1916. The reservoir was replaced by new facilities on an adjacent property six years later. When those facilities were abandoned, John G. Avery leased the property to the Cowboy Country Club between 1939 and 1982 when it burned down. In 1999, the City Council passed Ordinance 2001 authorizing the sale of the property through the public bidding process. The property is still owned by the City.

In 2013, the City Council directed the Open Spaces Commission to review this parcel for its value as open space. The Commission felt that the parcel has significant value given the cultural and historic resources on site, significant scenic values, ecological values, accessibility, and recreational opportunities. The City Council passed Resolution 2014-04 memorializing it as open space and adopted Ordinance 2014-02 to permanently preserve the parcel as open space and repeal any conflicting ordinances. During this process, the Flagstaff community expressed significant concern with selling or developing the parcel and supported the designation.

In 2017, the Schultz Creek Trailhead and Natural Area was annexed into City limits⁷³ and rezoned from rural residential to public open space with a landmark overlay, a resource protection overlay, and rural floodplain designation.⁷⁴ Additionally, in 2017, the City's Heritage Preservation Commission voted to incorporate the parcel into the Landmark Overlay Zoning District given the role it played in Flagstaff's development and growth.

⁷² APN 300-47-004

⁷³ Flagstaff City Ordinance 2017-06

⁷⁴ Flagstaff City Ordinance 2017-07

Overview



6.1.2 Natural Resource Considerations

Central to the overall management of Schultz Creek Trailhead and Natural Area is the effective management of its natural resources. The water, wildlife, vegetation, and geologic resources are important factors that supported the acquisition of the property and the establishment of the Natural Area. To ensure the protection of the biological, physical, and visual resources, targeted management objectives, policies, and planned management actions have been identified.

The Schultz Creek Trailhead area contains a designated “floodway” that is a Rural Floodplain (Figure 19). However, the area does not fall under regulation by the Federal Emergency Management Act (FEMA) and is instead managed by the City Stormwater Section.⁷⁵ There are strict regulatory requirements associated with this area and any projects planned within this footprint must be reviewed by Stormwater in the initial stages of planning.⁷⁶ The “floodplain” designated in the southeast corner of the property is not regulated – it is a buffer for the “floodway” adjacent to the parcel.

Schultz Creek Trailhead and Natural Area is located within a typical northern Arizona ponderosa pine forest. The overstory is comprised of primarily ponderosa pine (*Pinus ponderosa*), with multiple willow trees (*Salix sp.*) along Schultz Creek. The Natural Area is within the Flagstaff Watershed Protection Project (FWPP), the goal of which is to reduce the risk of large wildfires and post-fire flooding.⁷⁷ As it is within the FWPP footprint, future prescription burns may be required in the Natural Area.

Many special status plant (Table 24) and wildlife (Table 25) species have been identified in the Schultz Creek Trailhead area by land management organizations such as the U.S. Forest Service and the State of Arizona.

Table 24: Special status plant species identified within a 5-mile radius of Schultz Creek Trailhead.

Common Name	Scientific Name	Identification Agency
Arizona Sneezeweed	<i>Helenium arizonicum</i>	USFS
Bulblet Fern	<i>Cystopteris bulbifera</i>	None
Caltha-leaf Phacelia	<i>Phacelia calthifolia</i>	None
Clustered Leather Flower	<i>Clematis hirsutissima</i>	USFS, State
Flagstaff Beardtongue	<i>Penstemon nudiflorus</i>	USFS
Flagstaff Cinquefoil	<i>Potentilla sanguinea</i>	None
Flagstaff False Pennyroyal	<i>Hedeoma diffusa</i>	USFS, State
Hairy Water Clover	<i>Marsilea vestita</i>	None

⁷⁵ According to Zoning Code 10-50.90.040

⁷⁶ *Ibid*

⁷⁷ Flagstaff Watershed Protection Project [website](#)

Common Name	Scientific Name	Identification Agency
Intermountain Bitterweed	<i>Hymenoxys helenoides</i>	None
Many-leaved Ivesia	<i>Ivesia multifoliolata</i>	None
Mogollon Columbine	<i>Aquilegia desertorum</i>	State
Mountain Hollyfern	<i>Polystichum scopulinum</i>	None
Rusby's Milkvetch	<i>Astragalus rusbyi</i>	USFS
Seashore Cactus	<i>Opuntia martiniana</i>	State
Schultz Rough Whitlow Grass (Rough Draba)	<i>Draba asprella</i> var. <i>stelligera</i>	None

*None = no state or federal status.

Table 25: Special status animal species identified within a 5-mile radius of Schultz Creek Trailhead.

Common Name	Scientific Name	Identification Agency
Allen's Lappet-browed Bat	<i>Idionycteris phyllotis</i>	FWS, USFS, BLM
Arizona Myotis	<i>Myotis occultus</i>	FWS, BLM
Arizona (Mountain) Treefrog	<i>Hyla wrightorum</i>	None
Bald Eagle	<i>Haliaeetus leucocephalus</i>	FWS, USFS, BLM
Big Brown Bat	<i>Eptesicus fuscus</i>	None
Boreal Chorus Frog	<i>Pseudacris maculata</i>	None
Fringed Myotis	<i>Myotis thysanodes</i>	FWS
Greater Short-horned Lizard	<i>Phrynosoma hernandesi</i>	None
Greater Western Bonneted Bat	<i>Eumops perotis californicus</i>	FWS, BLM
Hoary Bat	<i>Lasiurus cinereus</i>	None
Little Colorado Spinedace	<i>Lepidomeda vittata</i>	FWS
Long-eared Myotis	<i>Myotis evotis</i>	FWS
Long-legged Myotis	<i>Myotis Volans</i>	FWS
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	FWS
Northern Goshawk	<i>Accipiter gentilis</i>	FWS, USFS, BLM
Silver-haired Bat	<i>Lasionycteris noctavagans</i>	None
Southwestern Myotis	<i>Myotis auriculus</i>	None
Variable Skink	<i>Plestiodon multivirgatus</i> <i>epipleurotus</i>	None

*None = no state or federal status.

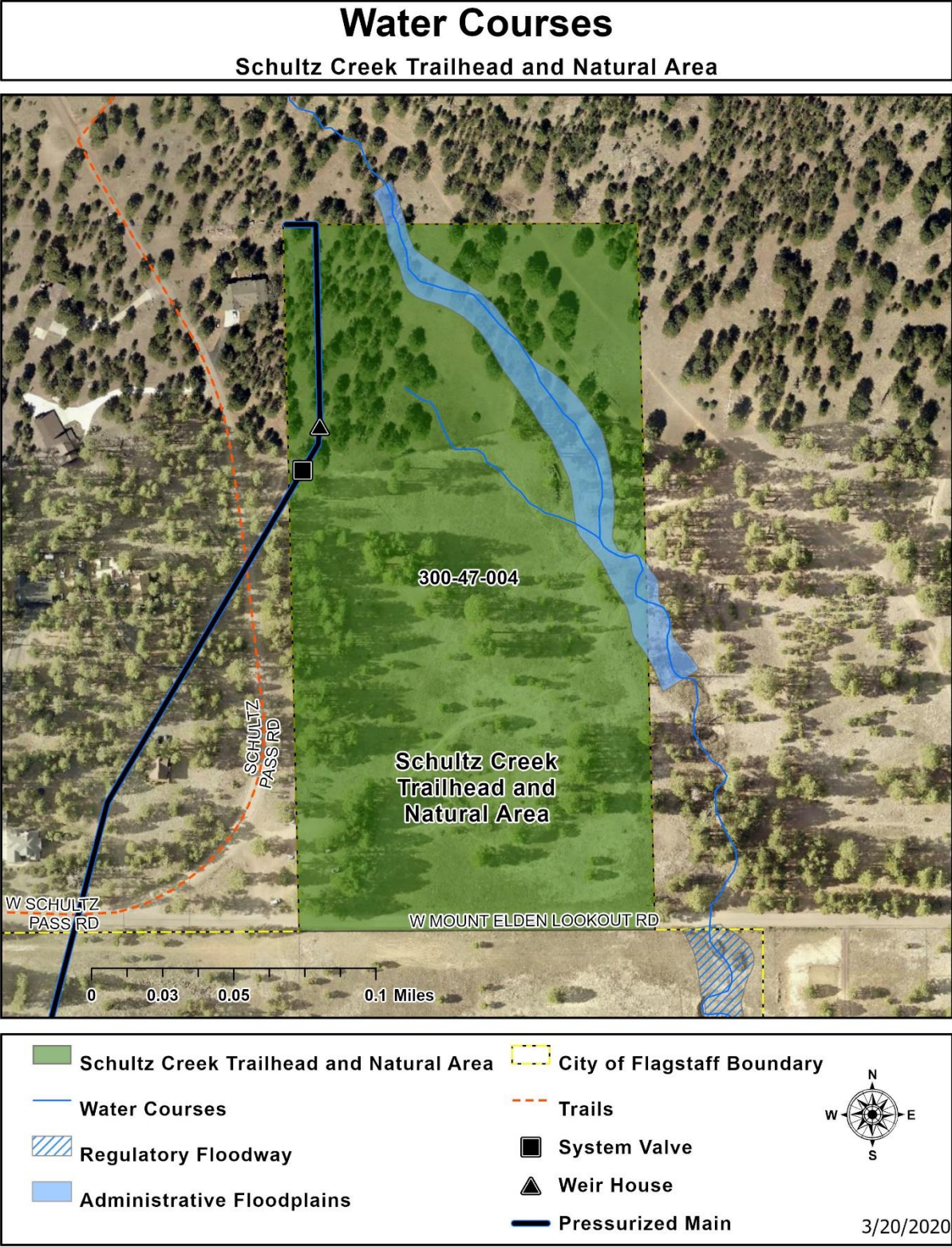


Figure 19: Floodplain map for the Schultz Creek Trailhead vicinity.

6.1.3 Cultural and Historic Resource Considerations

There has not yet been a formal cultural survey of the Natural Area to look for cultural resources. However, a Landmarks Overlay has been designated to the Schultz Creek Trailhead property to protect the remnants of the reservoir and associated infrastructure, a marker from the old Beale Wagon Road that crosses the property, and the remains from the Cowboy Country Club. See management policies in Chapter 3.3 for more details on the requirements for a Landmarks Overlay.

6.1.4 Public Use

The Schultz Creek Trailhead and Natural Area provides access between the City and Coconino National Forest properties like Mount Elden Dry Lakes. The property is used significantly by the public to participate in outdoor recreation activities and there are many user-created trails throughout the parcel.

Table 26: Permitted and Prohibited Recreational Uses of Schultz Creek Trailhead

Permitted Uses	Prohibited Uses
Cross Country Skiing	Campfires
Virtual geocaching	Camping
Hiking/Running	Fuelwood Collection (except with permit)
Horseback Riding	Off Highway Vehicles/Driving
Snow Shoeing	Hunting
Mountain Biking	Large-Scale Activities/Events (except with written approval from the Open Space Specialist)
Nature Study/Environmental Education	Flying model aircraft, such as drones, airplanes, or rockets (except with permit)
Wildlife Watching	

Motorized access to the property and nearby FUTS trails is by Mount Elden Lookout Road, maintained by Coconino County but federally owned, located along the southern boundary of the parcel. There is an informal parking area located on an adjacent private parcel that has significantly encroached onto the southwest corner of the City property that needs to be restored with the placement of boulders and re-seeding.

The Schultz Creek Trailhead and Natural Area is used as a hub for outdoor activities like trail runs and mountain biking events. There is potential to expand that use and designate the area as a primary access point for other outdoor recreation due to the proximity to the Mount Elden, Dry Lake Hills, and Fort Valley trail systems. However, there are many user-created trails in the eastern portion of the property that needs to be sustainably aligned with the designated trails and the Schultz Creek channel.

The property also contains water utilities infrastructure including an inner basin pipeline. City of Flagstaff Water Services requires access to these facilities for operation, maintenance, and repair, and can remove, alter, or maintain any improvements or obstructions within 15 feet of all City infrastructure.⁷⁸ However, any alterations or potential impacts to natural or cultural resources must be coordinated with the Open Space Program (see Chapter 2.3.3). The City holds an easement for the waterline that crosses through the parcels on the west side of the property.⁷⁹ In addition to the waterline easement, there is also a telephone and telegraph easement along the western property boundary with multiple telephone boxes along Schultz Pass Road.⁸⁰

To avoid public trespass onto these City utility areas, the existing infrastructure may be fenced off. Other fencing on the property does not align with property boundaries and will need to be moved to the proper locations. All fencing will be built to wildlife-friendly specifications.

6.1.5 Additional Management Policies

In addition to the general management policies outlined in Chapter 2: General Management Policies the following policies apply to Schultz Creek Trailhead.

Water Resources

- Improvement projects should include low impact development and green infrastructure aspects to encourage water infiltration on site and enhance water quality.

Cultural and Historic Resources

- Approval is required from the City Heritage Preservation Commission prior to implementing projects as required by the inclusion of Schultz Creek Trailhead in the City Landmarks Overlay District.

Access Management

- Utilities needs to retain access to their infrastructure and facilities for maintenance, operations, and repairs.

⁷⁸ Ordinance 2017-07

⁷⁹ Ordinance No. 1446

⁸⁰ Book 7 of Promiscuous Records, Page 514

6.1.6 Priority Action Plan

Provided below is a summary of priority actions that will be taken related the management of the property. It is anticipated that this Priority Action Plan will be updated every two years. The biannual review will be conducted in advance of the City of Flagstaff's budget development process. Modifications to the plan will be made to reflect existing conditions at the time of each update.

Actions – Facility Development

- Work with Coconino County to investigate upgrading the culvert under Mount Elden Lookout Road to improve Schultz Creek drainage.
- Work with Flagstaff Community Development – Multi-Modal Planning to designate and construct FUTS trails that provide non-motorized access to the parcel.
- Work with the Forest Service and Flagstaff Trail Initiative to determine an access solution for outdoor recreation connectivity to the Mount Elden, Dry Lake Hills, and Fort Valley trail systems.
- Partner with Flagstaff Trail Initiative to secure funding for an educational accessible trail interpreting the historic reservoir and Schultz Creek.

Actions – Resource Management

- Inventory the forest and cultural resources on the property.
- Develop a Forest Stewardship Plan that delineates which treatments are required.
- Install rock structures in the creek bed to slow down the water in Schultz Creek.
- Conduct noxious plant surveys and maintain map of occurrence locations.
- Coordinate with Flagstaff Fire Department and Arizona State Forestry to complete forest improvement projects.
- Treat invasive weeds biannually.
- Restore vehicle impacts and restore impacted vegetation.

Chapter 7: Open Space Connectors

Open Space Connectors link regional preserves and complementary open space using the Flagstaff Urban Trail System, washes, hillsides, floodplains, or other areas that are not fit for development. While there are currently no Open Space Connectors, the general management goals, policies, and actions outlined in Chapter 2 will apply when those properties are acquired.

Appendix A: Picture Canyon ALTA Survey

ALTA/ACSM LAND TITLE SURVEY

A PORTION OF SECTION 4, TOWNSHIP 21 NORTH,
RANGE 8 EAST OF THE GILA SALT RIVER MERIDIAN,
COCONINO COUNTY, ARIZONA



VICINITY MAP
NOT TO SCALE

SCHEDULE B - EXCEPTIONS
FROM COMMITMENT FOR TITLE INSURANCE, ISSUED BY PIONEER TITLE AGENCY, INC.
ORDER NO.: 00665687, EFFECTIVE DATE: 12/29/11 AT 2:30 A.M., AMENDED 01/12/2013

ITEM NO.	DESCRIPTION	NOTES
1	ANY ACTIONS TAX ASSESSMENTS	INDETERMINATE
2	RIGHT OF ENTRY RESERVED	INDETERMINATE
3	EASEMENTS AND RIGHTS	SHOWN HEREON
4	EASEMENTS AND RIGHTS	INDETERMINATE
5	EASEMENTS AND RIGHTS	INDETERMINATE
6	AGREEMENT ACCORDING TO TERMS	INDETERMINATE
7	LAND SURVEY MONUMENT RECORD	SHOWN HEREON
8	LAND SURVEY MONUMENT RECORD	SHOWN HEREON
9	THE EFFECT OF RESOLUTION	INDETERMINATE
10	GRAZING LEASE	INDETERMINATE
11	RIGHT OF WAY	INDETERMINATE
12	RIGHT OF WAY	SHOWN HEREON
13	RIGHT OF WAY	INDETERMINATE
14	RIGHT OF WAY	INDETERMINATE
15	RIGHT OF WAY	SHOWN HEREON
16	RIGHT OF WAY	SHOWN HEREON
17	RIGHT OF WAY	SHOWN HEREON
18	RIGHT OF WAY	SHOWN HEREON
19	RIGHT OF WAY	SHOWN HEREON
20	RIGHT OF WAY	SHOWN HEREON
21	RIGHT OF WAY	SHOWN HEREON
22	APPLICATION FOR RIGHT OF WAY	INDETERMINATE
23	APPLICATION FOR RIGHT OF WAY	SHOWN HEREON
24	APPLICATION FOR RIGHT OF WAY	INDETERMINATE
25	RIGHTS AS DISCLOSED	INDETERMINATE
26	AMBIGUITY OF THE DESCRIPTION	SHOWN HEREON
27	RESERVATION OR EXCEPTIONS	INDETERMINATE
28	WATER RIGHTS, CLAIMS OR TITLE	INDETERMINATE

LEGAL DESCRIPTION

FROM EXHIBIT A, COMMITMENT FOR TITLE INSURANCE, ORDER NO.: 00665687
Section 4, Township 21 North, Range 8 East, Gila & Salt River Base of Meridian, Coconino County, Arizona.

EXCEPT the South half of the Southwest quarter, (of the Southwest quarter), and the Southwest quarter of the Southeast quarter of the Southwest quarter of said Section 4, AND

EXCEPT the East half of the Southwest quarter of the Northwest quarter of the Southwest quarter; the Southwest quarter of the Northwest quarter of the Southwest quarter; the East half of the Northwest quarter of the Southwest quarter of the Southwest quarter; the Northwest quarter of the Southwest quarter of the Southwest quarter of the Southwest quarter; the West 1/2 of the West half of the Southwest quarter of the Northwest quarter of the Southwest quarter; and the West 1/2 of the West half of the Northwest quarter of the Southwest quarter of the Southwest quarter of said Section 4, AND

EXCEPT a portion of the South half of said Section 4 lying Southwesterly of "m electric transmission line".

EXCEPT all oil and gas and other hydrocarbon substances, helium or other substances of a gaseous nature, geothermal resources, coal, metals, minerals, fossils, fertilizers of every name and description and except all materials which may be essential to production of fossilizable material as reserved in Arizona Revised Statutes.

BASE OF BEARING AND COORDINATE SYSTEM

LINEAR UNIT: INTERNATIONAL FOOT
GEODETIC DATUM: NAD 83 - ARIZONA
VERTICAL DATUM: NAVD83 (GEOID)
SISTEM: CITY OF FLAGSTAFF LOW DISTORTION SYSTEM

PROJECTIONS

TRANSVERSE MERCATOR
LATITUDE OF GRID ORIGIN: 35° 00' 00" N
LONGITUDE OF CENTRAL MERIDIAN: 111° 31' 00" W
NORTHING AT GRID ORIGIN: 0.000 FT
EASTING AT CENTRAL MERIDIAN: 760,000 FT
CENTRAL MERIDIAN SCALE FACTOR: 1.000333 (EXACT)

THIS SURVEY WAS CONDUCTED USING GPS REFERENCED TO NGS (NATIONAL GEODETIC SURVEY) OPUS (ON-LINE POSITIONING SYSTEM) AND CONTRASTED TO A LEAST-SQUARED ADJUSTMENT WITH AN ESTIMATED ACCURACY OF 30% CONFIDENCE LEVEL.

ALL MEASURED DISTANCES AND BEARINGS SHOWN HEREON ARE GRID VALUES BASED ON THE LOW DISTORTION PROJECTION DATUM. THIS PROJECTION IS DEFINED SUCH THAT GRID DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
THE BASIS OF BEARINGS IS TRUE GEODETIC NORTH, NOT THAT THE MEASURED GRID BEARINGS SHOWN HEREON DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

ORTHOMETRIC HEIGHTS (ELEVATIONS) WERE TRANSFERRED TO THE SITE FROM CITY OF FLAGSTAFF PIV (m. 116300) USING GPS WITH NGS GEOID MODEL "GEOID09"

NOTES

AS TO THE MATTERS SHOWN HEREON, THE WLB GROUP, INC. HAS RELIED SOLELY ON THE COMMITMENT FOR TITLE INSURANCE PREPARED AND ISSUED BY PIONEER TITLE AGENCY, INC. (ORDER NO.: 00665687, EFFECTIVE DATE: 12/29/11 AT 2:30 A.M., AMENDED 01/12/2013). THE WLB GROUP, INC. AND THOMAS J. BUTLER, JR. MAKES NO STATEMENT AS TO THE ACCURACY OR COMPLETENESS OF THE SUBJECT COMMITMENT FOR TITLE INSURANCE.

AS TO SCHEDULE B EXCEPTIONS ITEMS 3, 15, AND 16, THE LOCATION OF THE 80 FEET WIDE RIGHT OF WAY AS SHOWN ON SHEET 2 WAS DETERMINED BY A BEST FIT TO THE FOREGLASS GUN LINE MARKERS LOCATED IN THE FIELD AT THE TIME OF THIS SURVEY AND A DESCRIPTION PROVIDED BY THE STATE LAND OFFICE.

AS TO SCHEDULE B EXCEPTIONS ITEM 12, THE LOCATION OF THE SPECIAL LAND USE PERMIT (TILL) AREA AS SHOWN ON SHEET 2 WAS DETERMINED BY SCALING AN EXHIBIT PROVIDED BY THE STATE LAND OFFICE.

AS TO SCHEDULE B EXCEPTIONS ITEM 12, THE LOCATION OF THE RIGHT OF WAY (ROW) AREA AS SHOWN ON SHEET 2 WAS DETERMINED BY A BEST FIT LOCATION FROM THE CITY OF FLAGSTAFF GEOSPATIAL INFORMATION SYSTEM (GIS) AND BY SCALING AN EXHIBIT PROVIDED BY THE STATE LAND OFFICE.

AS TO SCHEDULE B EXCEPTIONS ITEM 18, THE LOCATION OF THE 30 FEET WIDE RIGHT OF WAY AS SHOWN ON SHEET 3 WAS DETERMINED BY A BEST FIT TO THE FOREGLASS WATER LINE MARKERS LOCATED IN THE FIELD AT THE TIME OF THIS SURVEY AND A DESCRIPTION PROVIDED BY THE STATE LAND OFFICE.

AS TO SCHEDULE B EXCEPTIONS ITEMS 21 AND 23, THE LOCATION OF THE 10 FEET WIDE RIGHT OF WAY AS SHOWN ON SHEET 2 WAS DETERMINED BY A BEST FIT LOCATION FROM SCALING AN EXHIBIT PROVIDED BY THE STATE LAND OFFICE.

AS TO SCHEDULE B EXCEPTIONS ITEM 26, THE LEGAL DESCRIPTION HAS BEEN CONNECTED AS SHOWN HEREON WITH ITALIC AND PARENTHESES TO DESCRIBE THE AREA OF THIS SURVEY.

AS TO ALL EASEMENTS AND RIGHT OF WAY SHOWN HEREON, THEY ARE FOR REFERENCE ONLY AND MAY NOT REFLECT ACTUAL LOCATIONS AND AREAS.

AS TO THE SCHEDULE B ITEMS LISTED HEREON AS INDETERMINATE, THESE ITEMS WERE EITHER NOT FURNISHED BY THE TITLE COMPANY OR DID NOT HAVE SUFFICIENT METES AND BOUNDS DESCRIPTIONS TO CONVEY THE LOCATIONS ON THIS SURVEY.

LEGAL DESCRIPTION

FURNISHED BY SURVEYOR, Item 4, SCHEDULE B REQUIREMENTS, COMMITMENT FOR TITLE INSURANCE, ORDER NO.: 00665687

The following is a legal description of a parcel land lying within Section 4, Township 21 North, Range 8 East, of the Gila Salt River Meridian, Coconino County, Arizona, more particularly described as follows:

Being the TRUE POINT OF BEGINNING at a found 3" BLM brass cap 722N, R8E, S33, S34, S4, S5, T21N, R8E, 1987" at the northeast corner of said Section;

Thence South 00°32'39" West along the east line of said Section, a distance of 2,328.85 feet to a set 1/2" rebar with aluminum cap "LS 40640" at the west quarter corner of said Section, from which a found 1/2" aluminum cap "K.C. 1/4, S5, S3, 1884" bears South 87°10'59" West, a distance of 5.00 feet;

Thence continuing along said line South 00°10'05" West, a distance of 89.344 feet to a set 1/2" rebar with aluminum cap "LS 40640" on the northerly line of the Arizona Public Service 100.00 feet Right of Way;

Thence South 28°13'00" West along said Right of Way line, a distance of 275.764 feet to a set 1/2" rebar with aluminum cap "LS 40640";

Thence continuing along said Right of Way line South 57°01'00" West, a distance of 573.50 feet to a set 1/2" rebar with aluminum cap "LS 40640" on a line parallel with and 100.00 feet east of the east line of the southwest quarter of the southwest quarter of said Section;

Thence South 00°13'02" East along said parallel line, a distance of 888.17 feet to a set 1/2" rebar with aluminum cap "LS 40640" on the south line of said Section;

Thence North 89°45'05" West along said Section line, a distance of 100.00 feet to a set 1/2" rebar with aluminum cap "LS 40640" at the southeast corner of the southwest quarter of the southwest quarter of the southwest quarter of said Section;

Thence North 00°13'02" West along the east line of the southwest quarter of the southwest quarter of the southwest quarter of said Section, a distance of 858.58 feet to a set 1/2" rebar with aluminum cap "LS 40640" at the northeast corner of the southwest quarter of the southwest quarter of the southwest quarter of said Section;

Thence North 89°53'06" West along the north line of the southwest quarter of the southwest quarter of the southwest quarter of said Section, a distance of 348.31 feet to a found 2" square metal plate in concrete "N.E. COR. of the southwest corner of the E. 1/4, 3rd National Gas property";

Thence North 00°13'13" West along the east line of said property, a distance of 134.82 feet to a found 2" square metal plate in concrete "N.E. COR. of the northeast corner of said property";

Thence South 89°53'35" West, along the north line of said property, a distance of 1288.43 feet to a found 2" square metal plate in concrete "N.W. COR. of the northeast corner of said property";

Thence South 00°14'30" East along the west line of said property, a distance of 1,206.38 feet to a found 2" square metal plate in concrete "S. of the southwest corner of said property";

Thence North 89°54'14" West along the north line of the southwest quarter of the southwest quarter of the southwest quarter of said Section, a distance of 1,330.83 feet to a set 1/2" rebar with aluminum cap "LS 40640" on the west line of said Section;

Thence North 00°16'31" West along said Section line, a distance of 1,954.81 feet to a found 2" BLM brass cap 722N, R8E, 1/4, S3, S4, LS 14672, 1988" at the west quarter corner of said Section;

Thence continuing along said Section line North 00°21'36" West, a distance of 2,598.04 feet to a found 2 1/2" aluminum cap 722N, R8E, 1/4, S3, S4, LS 14672, 1988" at the west quarter corner of said Section;

Thence North 88°43'58" East along the north line of said Section, a distance of 2,654.52 feet to a found 3" BLM brass cap 722N, R8E, 1/4, S3, S4, T21N, 1987" at the north quarter corner of said Section;

Thence continuing along said Section line North 89°18'14" East, a distance of 2,655.34 feet to the TRUE POINT OF BEGINNING.

Containing 477.80 Acres, more or less

CERTIFICATION

To The City of Flagstaff, Pioneer Title Agency, Inc., Old Republic National Title Insurance Company, and the State of Arizona, a Body Public:

This is to certify that this map or plot and the survey on which it is based were made in accordance with the 2011 Minimum Standards Detail Requirements for ALTA/ACSM Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 8, 15, 11(a), 11(b), 13, 16, 17, 20(a), and 20(b) of Table A thereof. The field work was completed on 02-03-2012.

Date: 02/15/2012

Thomas J. Butler, Jr.
(Thomas J. Butler, Jr. 40640)



DATE:	
TIME:	
NO:	

PROPERTY & RECORDS
SECTION 4, TOWNSHIP 21 NORTH, RANGE 8 EAST, GILA & SALT RIVER MERIDIAN, COCONINO COUNTY, ARIZONA
ORDER NO.: 00665687
DATE: 12/29/11
AMENDED: 01/12/2013
PH: (928) 778-1307

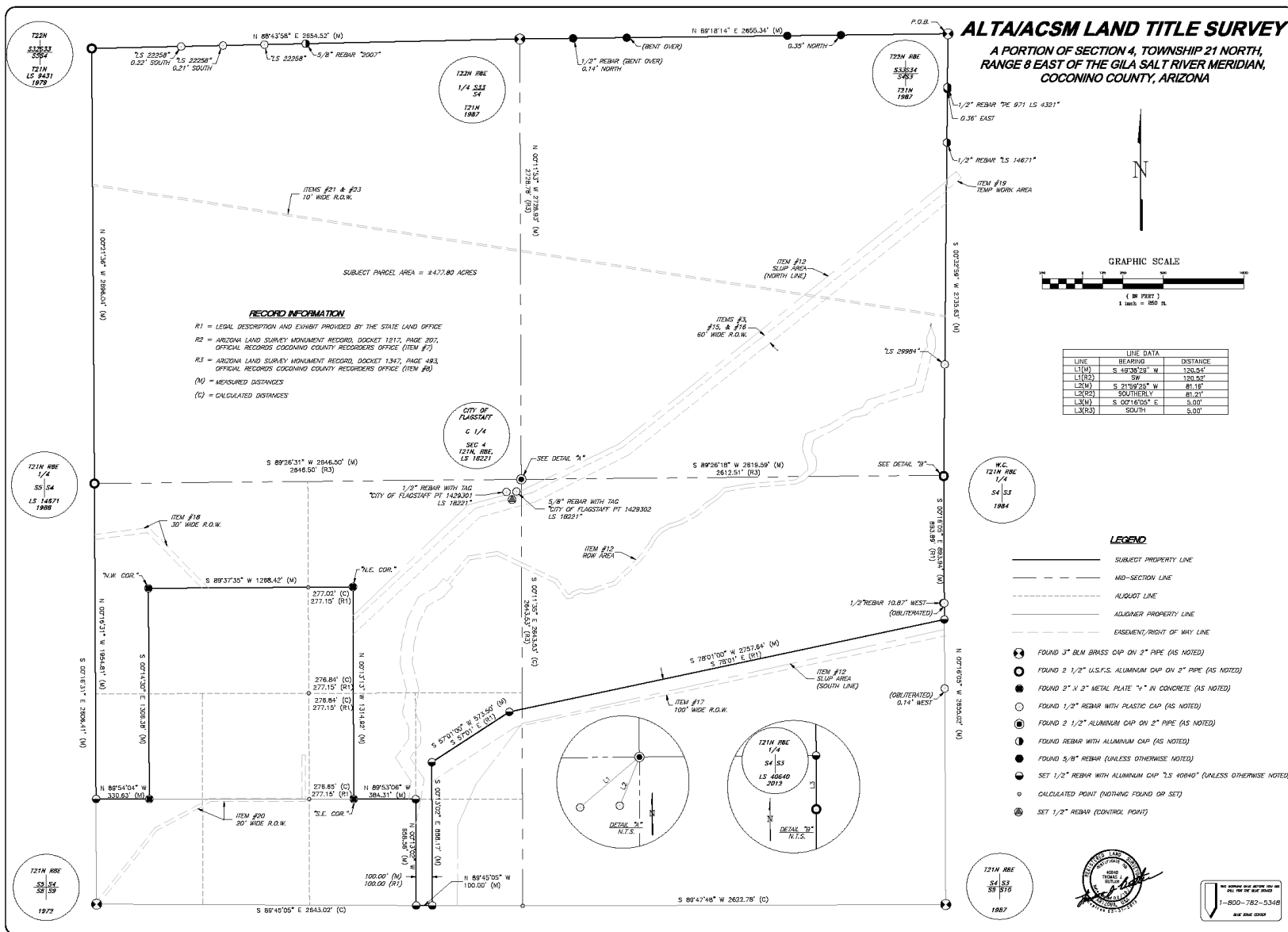
The WLB Group, Inc.

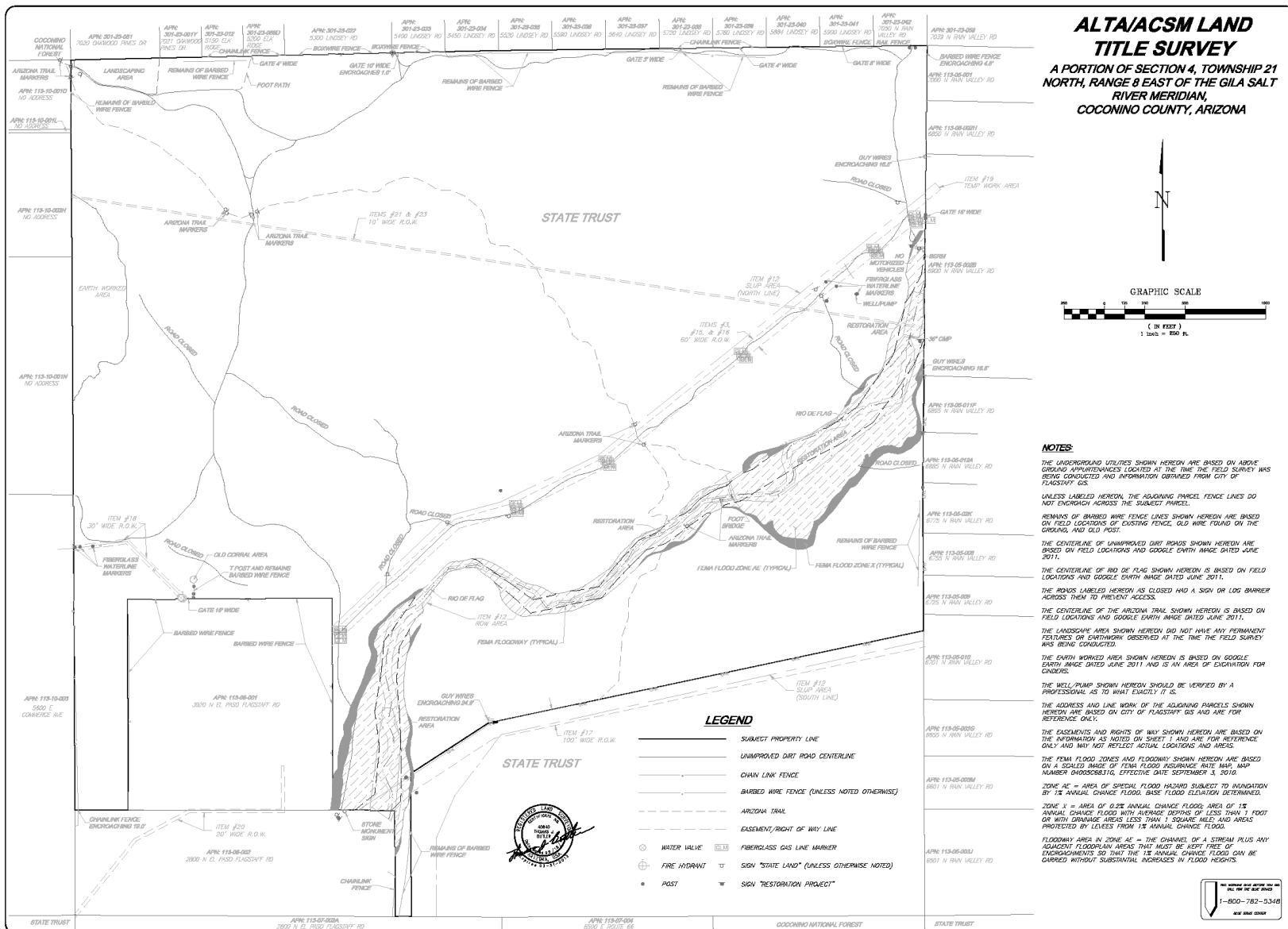
ALTA/ACSM LAND TITLE SURVEY
PICTURE CANYON
COVER SHEET

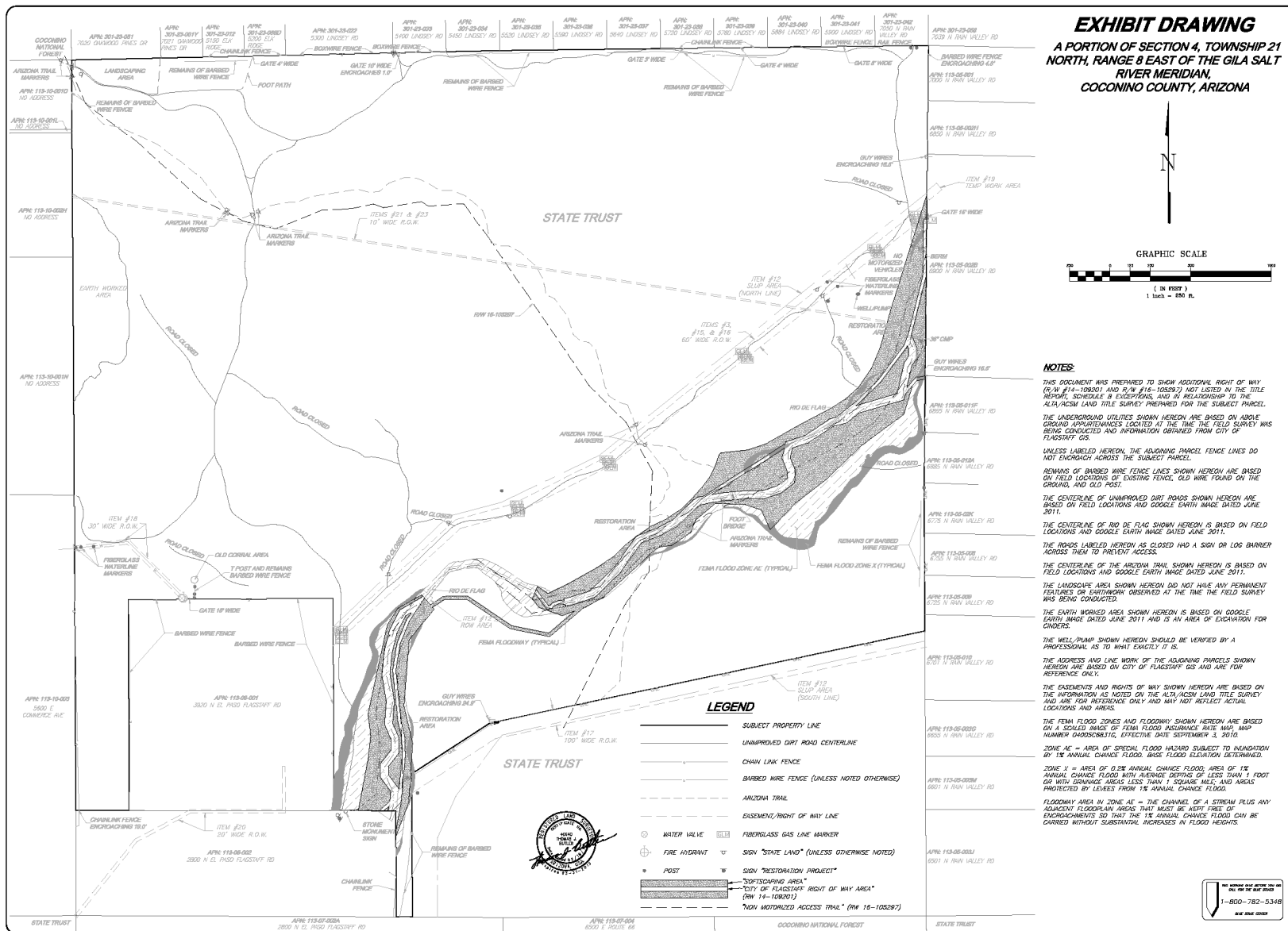
ASSIGNED (JL):	DATE:
CHECK (JL):	DATE:
DATE:	DATE:

PROJECT NO.
3110184002

SHEET OF
13







DATE:	2/25/2015
BY:	WLB
CHECKED BY:	WLB
DATE:	FEB 26/15
BY:	WLB
PROJECT NO:	3110184002
SHEET:	01
1-800-782-5348 NEW BLUE GROUP	

EXHIBIT DRAWING
PICTURE CANYON
TOPOGRAPHY SHEET

1 1

Appendix B: Arizona State Parks Conservation Easement

Attachment C

DEED OF CONSERVATION EASEMENT

THIS GRANT DEED OF CONSERVATION EASEMENT is made this 8 day of November, 2012 by **The City of Flagstaff**, having an address at **211 West Aspen Avenue, Flagstaff, Arizona 86002** ("Grantor"), in favor of Arizona State Parks Board, having an address at 1300 W. Washington, Phoenix, Arizona, 85007 ("Grantee").

WITNESSETH:

WHEREAS, Grantor is the sole owner in fee simple of certain real property in Coconino County, Arizona, more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property"); and

WHEREAS, the Property possesses ecological values (collectively, "conservation values") of great importance to Grantors and the people of the State of Arizona; and

WHEREAS, in particular, Picture Canyon provides a scenic gateway into Flagstaff from I-40 and historic Route 66. Sheep Hill is located to the west and Turkey Hill is located to the east of the project area. The large village site of Elden Pueblo is roughly ½ mile to the northwest. The parcel contains the Rio de Flag floodway, one of the natural landmarks of the community, and is vital to the Rio de Flag greenbelt. The Rio channel, which runs through Picture Canyon, contains steep topography, a rare waterfall, pit houses, caves and petroglyph panels. The parcel reflects many of the qualities of Flagstaff's unique scenic beauty – its high desert ponderosa pine forest, piñon and juniper vegetation, and meadows; and

WHEREAS, the specific conservation values of the Property are further documented in an inventory of relevant features of the Property, submitted by Grantor as application for matching funds from the Land Conservation Fund through the Growing Smarter Trust Land Acquisition Grant Program and incorporated by this reference ("Baseline Documentation"), which consists of reports, maps, photographs, and other documentation that the parties provide, collectively, an accurate representation of the Property at the time of this grant and which is intended to serve as an objective, though nonexclusive, information baseline for monitoring compliance with the terms of this grant; and

WHEREAS, Grantor intends that the conservation values of the Property be preserved and maintained by permitting only those land uses on the Property that do not significantly impair or interfere with them, including, without limitation, those land uses relating to existing at the time of the grant; and

WHEREAS, Grantor further intends, as owner of the Property, to convey to Grantee the right to preserve and protect the conservation values of the Property in perpetuity; and

WHEREAS, Grantee is an Arizona state agency whose primary purpose is to manage and conserve Arizona's natural, cultural and recreational resources for the benefit of the people;

NOW, THEREFORE, in consideration of a Grant Award in the amount not to exceed \$2,389,000 and in consideration of the above and the mutual covenants, terms, conditions and restrictions contained herein, and pursuant to the laws of Arizona and in particular A.R.S. § 33-271 through § A.R.S. 33-276 and A.R.S. §41-511.23, Grantor hereby voluntarily grants and conveys to Grantee a conservation easement in perpetuity over the Property of the nature and character and to the extent hereinafter set forth ("Easement").

1. **Purpose.** It is the purpose of this easement to assure that the Property will be retained forever in predominantly the condition reflected in the Baseline Documentation referenced in this document and to prevent any use of the Property that will significantly impair or interfere with the conservation values of the Property. Grantor intends that this Easement will confine the use of the Property to such activities, including, without limitation, those involving passive recreational uses compatible with the maintenance of the Property's Conservation Values, such as hiking and horseback riding, educational gatherings, periodic planting of native plant species, release of rehabilitated or displaced wildlife and other activities, as are not inconsistent with the purpose of this Easement. This Easement is intended to assure that the goals of the Growing Smarter Act, as amended, to conserve open spaces in or near urban areas and other areas experiencing high growth pressures, will be met. This Easement seeks to conserve open space, defined as land that is generally free of uses that would jeopardize the conservation values of the land or development that would obstruct the scenic beauty of the land. Conserved land remains open space if the stewards of the parcel maintain protection of both the natural and cultural assets for the long-term benefit of the land and the public and the unique resources that the area contains, such as scenic beauty, protected plants, wildlife, archaeology, passive recreation values and the absence of extensive development.
2. **Rights of Grantee.** To accomplish the purpose of this Easement the following rights are conveyed to Grantee by this easement:
 - (a) To preserve and protect the conservation values of the Property;
 - (b) To enter upon the Property at reasonable times in order to monitor Grantor's compliance with and otherwise enforce the terms of this Easement in accordance with paragraph 8; provided that, except in cases

where Grantee determines that immediate entry is required to prevent, terminate, or mitigate a violation of this Easement, such entry shall be upon prior reasonable notice to Grantor; unless entry is open to the public, in which case notice to enter upon Property is assumed if it complies with the Grantor's enforced rules of public access, and Grantee shall not in any case unreasonably interfere with Grantor's use and quiet enjoyment of the Property; and

- (c) To prevent any activity on or use of the Property that is inconsistent with the purpose of this Easement and to require the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use, pursuant to the remedies set forth in paragraph 8.
3. **Restricted Uses.** Regardless, no more than 10% of the acquired land, up to a limit of 20 acres total, may be eligible for alteration or development, and all such proposed work must be approved by the Grantee in advance, subject to Paragraph 6 below. No changes may be made to the parcel that would seriously or negatively affect its conservation and open space values. Any activity on or use of the Property inconsistent with the purpose of this Easement is prohibited. Without limiting the generality of the foregoing, the following activities and uses are allowed only upon prior approval of the Grantee:
- (a) **Construction of Buildings and Other Structures.** The construction or reconstruction of any building or other structure or improvement, except those existing on the date of this Easement, is prohibited, except those alterations which are approved in advance by the Grantee and listed in sub-paragraphs (b) and (c).
 - (b) **Trail and Parking Lot Construction.** No trail, road, parking lot, ramada, staging area or other man made structure shall be constructed without the advance written permission of Grantee. Such permission shall not be unreasonably withheld unless Grantee determines that the proposed location of any trail, road, parking lot, ramada or staging area will substantially diminish or impair the Conservation Values of the Property or is otherwise inconsistent with this Deed.
 - (c) **Signage or Billboards.** No signs, billboards, awnings or advertisements shall be displayed or placed on the Property, except for appropriate and customary signs for interpretive and recreational purposes, such as "no trespassing" signs and trail markers, and then only with advance written permission from Grantee. Under no circumstances shall any sign or marker be erected that materially adversely affects the Conservation Values of the Property.
 - (d) **Temporary Fundraising Activity.** Grantor may request the right to perform periodic and temporary fundraising activities on the Property if

the revenues earned from those activities will be used for stewardship of the Property. Such fundraising activities shall be allowed only upon written approval of Grantee if Grantee determines that the proposed activity will not substantially diminish or impair the Conservation Values of the Property or is otherwise inconsistent with this Deed.

Where Grantee's approval is required, as set forth above, Grantee shall grant or withhold its approval in writing within a reasonable period of time. Grantor's written request shall include a description of the nature, scope, design, location, timetable, and any other material aspect of the proposed activity in sufficient detail to permit Grantee to make an informed judgment as to its consistency with purpose of this Easement. Grantee's approval may be withheld only upon a reasonable determination by Grantee that the action as proposed would be inconsistent with the purpose of this Easement. If Grantee does not respond to the request within 60 days, the request shall be deemed denied. In the event of approval, any deviation from the nature, scope, design, location, timetable or any other material aspect of the proposed activity requires that Grantor submit an additional request for approval.

4. **Prohibited Uses.** Any activity on or use of the Property inconsistent with the purpose of this Easement is prohibited. Without limiting the generality of the foregoing, the following activities and uses are expressly prohibited:
 - (a) **Subdivision.** Any division or subdivision of title to the Property, whether by physical or legal process, is prohibited.
 - (b) **Commercial or Industrial Activity.** No commercial or industrial uses shall be allowed on the Property.
 - (c) **Mining.** The mining or extraction of soil, sand, gravel, rock, oil, natural gas, fuel, or any other mineral substance is prohibited.
 - (d) **Water Rights.** Grantor shall retain and reserve the right to use water rights sufficient to maintain and improve the Conservation Values of the Property, and shall not transfer, encumber, lease, sell, or otherwise separate water rights necessary and sufficient to maintain and improve the Conservation Values of the Property from title to the Property itself.
 - (e) **Trash and Dumping.** The dumping or uncontained accumulation of any kind of trash or refuse on the Property is prohibited.
5. **Reserved Rights.** Grantors reserve to themselves, and to their personal representatives, heirs, successors, assigns, all rights accruing from their ownership of the Property, including the right to engage in, or permit or invite others to engage in, all uses of the Property that are not expressly prohibited herein and are not inconsistent with the purpose of this Easement. Without limiting the generality of

the foregoing, and subject to the terms of paragraph 3, the following rights are expressly reserved:

- (a) To engage in and permit others to engage in recreational uses of the Property, including, without limitation, hiking, horseback riding, and other forms of passive recreation that require no surface alteration or other development of the Property.
- (b) To engage in and permit others to engage in educational and scientific study activities, without limitation, provided that no unauthorized alteration of the Property or of objects or sites addressed in paragraph 7 will occur as a result of these activities.
- (c) To remove invasive plant species and to re-vegetate portions of the Property with indigenous plants if needed after flood, fire, or other disturbance.

Grantor is required to notify Grantee prior to undertaking or permitting new activities on the Property, if not specifically listed above, in order to afford Grantee an adequate opportunity to monitor the activities in question to ensure that they are not inconsistent with the purpose of the Easement. Grantor shall provide notice to Grantee in writing not less than 60 days prior to the date Grantor intends to undertake or permit the new activity in question.

6. Notice of Intention to Undertake Certain Permitted Actions.

6.1 Where Grantee's approval is required, as set forth in paragraphs 3(a) through 3(d), Grantee shall grant or withhold its approval in writing within 60 days of receipt of Grantor's written request therefore. The written request shall include a description of the nature, scope, design, location, timetable, and any other material aspect of the proposed activity in sufficient detail to permit Grantee to make an informed judgment as to its consistency with purpose of this Easement. Grantee's approval may be withheld only upon a reasonable determination by Grantee that the action as proposed would be inconsistent with the purpose of this Easement. If Grantee does not respond to the request within the 60-day time frame, the request shall be deemed denied. In the event of approval, any deviation from the nature, scope, design, location, timetable or any other material aspect of the proposed activity requires that Grantor submit an additional request for approval.

6.2 Grantor is required to notify Grantee prior to undertaking permitted activities consistent with the Easement, other than those activities governed by paragraphs 3(a) through 3(d) and 6.1 to afford Grantee an adequate opportunity to monitor the activities in question to ensure that they are not inconsistent with the purpose of the Easement. Grantor shall provide notice to Grantee in writing not less than 60 days prior to the date Grantor intends to undertake the activity in question.

7. Historic Properties and Preservation of Resources.

7.1 Definition. Historic Properties are defined as sites, buildings, structures and objects significant in this state's history, architecture, archaeology, engineering and culture which meet eligibility criteria which the Arizona Parks Board establishes for listing on the Arizona Register of Historic Places or which are listed on the National Register of Historic Places.

7.2 General Preservation. Grantor agrees to consider the use of and impact upon historic properties located on the Property and to undertake any reasonable preservation that is necessary to carry out the terms of this Easement. In addition, the Grantor agrees to avoid any demolition, substantial alteration or significant deterioration of historic properties and objects on the Property.

7.3 Land Uses and Historic Preservation. Grantor agrees that only those uses that are compatible with preservation of the cultural resources located on the Property shall be allowed on the Property and ensure that the pre-historical, historical, architectural or culturally significant values will be preserved or enhanced.

7.4 Unintentional Disturbance. The Grantor agrees to monitor the Property for the unintentional disturbance of human remains or funerary objects and historic properties on the Property and shall report any such disturbance to the Director of the Arizona State Museum, the State Historic Preservation Officer and the Grantee. The Grantor agrees to exercise any and all measures recommended by either the Director of the Arizona State Museum, or other permitting authority as established by state law, or the Grantee, to see that on further disturbance of the remains or objects occurs.

7.5 Prohibition on Excavation. The Grantor agrees that it will not disturb or excavate or grant any other person permission to disturb or excavate in or upon any historic property, or any historic or prehistoric ruin, burial ground, archaeological or vertebrate pale ontological specimen. For the purpose of this provision, archaeological specimen means any item resulting from past human life or activities which is at least 50 years old including petroglyphs, pictographs, paintings, pottery, tools, ornaments, jewelry, textiles, ceremonial objects, weapons, armaments, vessels, vehicles and human skeletal remains. Archaeological specimen does not include arrowheads, coins or bottles. Notwithstanding the applicability of these prohibitions, the Grantee, in consultation with the State Historic Preservation Officer, may consider and allow for the excavation in or upon a historic property, provided that the Conservation Values of the Property are not adversely affected. In addition, any excavation of disturbance that is allowed by the Grantee is still subject to approval by and the permitting requirements of the Director of the Arizona State Museum, or other permitting authority established in law.

7.6 Prohibition on Defacing Property. The Grantor agrees not to deface or otherwise alter any site or object on the Property and embraced within the terms stated in provisions 7.1 through 7.5. The Grantor further agrees to make reasonable efforts to avoid the potential that persons and entities entering upon the site for approved purposes

may deface or otherwise alter any site or object embraced within the terms stated in provisions 7.1 through 7.5.

7.7 Reporting Discoveries. The Grantor agrees that during the course of acting as steward of the Property and especially during any work to prepare the Property for public access, such as a survey, excavation, construction or other like activity, that it shall report promptly to the Director the Arizona State Museum, or other permitting authority as established by state law, the State Historic Preservation Officer and the Grantee, the existence of any archaeological, pale ontological or historical site or object that is at least 50 years old and that is discovered in the course of such survey, excavation, construction, other like activity, or other activities undertaken as the steward of the Property. All such discoveries are subject to the provisions of the Arizona Antiquities Act. Any discoveries may require treatment such as remediation or restoration if the site or object was adversely impacted as a result of the survey, excavation, construction or other like activity, which the cost of any such remediation or restoration shall be borne by Grantor.

8. Grantee's Remedies.

8.1 Notice of Violation; Corrective Action. If Grantee determines that a violation of the terms of this Easement has occurred or is threatened, Grantee shall give written notice to Grantors of such violation and demand corrective action sufficient to cure the violation and, where the violation involves injury to the Property resulting from any use or activity inconsistent with the purpose of this Easement, to restore the portion of the Property so injured to its prior condition in accordance with a plan approved by Grantee at Grantor's expense.

8.2 Injunctive Relief. If Grantor fails to cure the violation within 20 days after receipt of notice thereof from Grantee, or under circumstances where the violation cannot reasonably be cured within a 20 day period, fail to begin curing the violation within the 20 day period, or fail to continue diligently to cure such violation until finally cured, Grantee may bring an action at law or in equity in a court of competent jurisdiction to enforce the terms of this Easement, to enjoin the violation, ex parte as necessary, by temporary or permanent injunction, and to require the restoration of the Property to the condition that existed prior to any such injury.

8.3 Damages. Grantee shall be entitled to recover damages up to, but not in excess of the grant amount, directly resulting from violation of the terms of this Easement or injury to any conservation values protected by this Easement, including, without limitation, damages for the loss of scenic, aesthetic, or environmental values. Without limiting the Grantors' liability therefore, Grantee, in its sole discretion, may apply any damages recovered to the cost of undertaking any corrective action on the Property.

8.4 Emergency Enforcement. If Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values of the Property, Grantee may pursue its remedies under this

paragraph 8 without prior notice to Grantor or without waiting for the period provided for cure to expire.

8.5 Scope of Relief. Grantee's rights under this section 8 apply equally in the event of either actual or threatened violations of the terms of this Easement. Grantor agrees that Grantee's remedies at law for any violation of the terms of this Easement are inadequate and that Grantee shall be entitled to the injunctive relief described in paragraph 8.2, both prohibitive and mandatory, in addition to such other relief to which Grantee may be entitled, including specific performance of the terms of this Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Grantee's remedies described in this Paragraph 8 shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.

8.6 Costs of Enforcement. All reasonable costs incurred by Grantee in enforcing the terms of this Easement against Grantors, including, without limitation, costs and expenses of suit and reasonable attorneys' fees, and any costs of restoration necessitated by Grantors' violation of the terms of this Easement shall be borne by Grantor.

8.7 Forbearance. Forbearance by Grantee to exercise its rights under this Easement in the event of any breach of any term of this Easement by Grantor shall not be deemed or construed to be a waiver by Grantee of such term or of any subsequent breach of the same or any other term of this Easement or of any of Grantee's rights under this Easement. No delay or omission by Grantee in the exercise of any right or remedy upon any breach by Grantor shall impair such right or remedy or be construed as a waiver.

8.8 Waiver of Certain Defenses. Grantors hereby waive any defense of laches, estoppel, or prescription.

8.9 Acts Beyond Grantor's Control. Nothing contained in this Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the Property resulting from causes beyond Grantor's control, including, without limitation, fire, flood, storm, earth movement, or from any prudent action taken by Grantor under emergency conditions to prevent, abate, mitigate significant injury to the Property resulting from such causes. Notwithstanding the foregoing, nothing herein shall preclude Grantor's and Grantee's rights to pursue any third party for damages to the Property from vandalism, trespass or any other violation of the terms of this Easement.

9. Arbitration. Notwithstanding the remedies available to the parties pursuant to Paragraph 8 above, the parties agree to resolve all disputes arising out of or relating to this Easement through arbitration, after exhausting applicable administrative review, to the extent required by A.R.S. §12-1518 except as may be required by other applicable statutes.

10. Access. Grantor agrees to provide reasonable public access to the Property and agrees to impose no restrictions that would limit reasonable public access.

11. Records Retention. Grantor agrees to retain all data, books and other records ("Records") relating to the grant for a period of five years. All records shall be open to inspection and audit by the grantee at reasonable times. Upon request, the Grantor will provide a legible copy of any or all such records within a reasonable time.

12. Annual Reports and Certification. Grantor agrees to report annually on the condition of the Property and to report any change in the Property from the Baseline Documentation to the Grantee in a format of the Grantee's choosing. The Grantor shall certify compliance with the obligations of the Deed of Conservation Easement every year in perpetuity, on a form to be provided by the BOARD. In addition, on-site inspections shall be conducted periodically at the discretion of the BOARD. The following point shall be taken into consideration during the inspection of properties that have been acquired or developed with grant assistance: retention and use appearance, maintenance, management, availability, environment, signing, and interim use.

13. Costs, Liabilities, Taxes, and Environmental Compliance.

13.1 Costs, Legal Requirements, and Liabilities. Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property, including the maintenance of adequate liability self-insurance coverage. Grantor remains solely responsible for obtaining any applicable governmental permits and approvals for any construction or other activity or use shall be undertaken in accordance with all applicable federal, state, and local laws, regulations, and requirements. Grantor shall keep the Property free of any liens arising out of any work performed for, materials furnished to, or obligations incurred by the Grantors.

13.2 Taxes. Grantor shall pay before delinquency all taxes, assessments, fees, and charges of whatever description levied on or assessed against the Property by competent authority (collectively "taxes"), including any taxes imposed upon, or incurred as a result of, this Easement, and shall furnish Grantee with satisfactory evidence of payment upon request.

13.3 Representations and Warranties. Grantors represent and warrant that, after reasonable investigation and to the best of their knowledge:

- (a) No substance defined, listed or otherwise classified pursuant to any federal, state, or local law, regulation, or requirement as hazardous, toxic, polluting, or otherwise contaminating to the air, water, soil, or in any way harmful or threatening to human health or the environment exists or has been released, generated, treated, stored, used disposed of, deposited, abandoned, or transported in, on, from or across the Property;
- (b) There are not now any underground storage tanks located on the Property, whether presently in service or closed, abandoned, or decommissioned, and no underground storage tanks have been removed

- from the Property in a manner not in compliance with applicable federal, state, and local laws, regulations, and requirements;
- (c) Grantor and the Property are in compliance with all federal, state, and local laws, regulations, and requirements applicable to the Property and its use;
 - (d) There is no pending or threatened litigation in any way affecting, involving, or relating to the Property; and
 - (e) No civil or criminal proceedings or investigations have been instigated at any time or are now pending, and no notices, claims, demands, or orders have been received, arising out of any violation or alleged violation of, or failure to comply with, any federal, state, local law, regulation, or requirement applicable to the Property and its use, nor do there exist any facts or circumstances that the Grantor might reasonably expect to form the basis for any such proceedings, investigations, notices, claims, demands, or orders.

13.4 Remediation. If, during Grantor's ownership of the Property, there occurs, a release in, on, or about the Property of any substance now or hereafter defined, listed, or otherwise classified pursuant to any federal, state, or local law, regulation, or requirement as hazardous, toxic, polluting, or otherwise contaminating to the air, water, or soil, or in any way harmful or threatening to human health or the environment, Grantor agree to take all steps reasonably necessary to assure its containment and remediation, including any cleanup that may be legally required, unless the releases were caused by the Grantee, in which case Grantee shall be responsible therefore.

13.5 Control. Nothing in this Easement shall be construed as giving rise, in the absence of a judicial decree, to any right or ability in Grantee to exercise physical or managerial control over the day-to-day operations of the Property, or any of Grantor's activities on the Property, or otherwise to become an operator with respect to the Property within the meaning of The Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA").

14. Extinguishment and Condemnation.

14.1 Extinguishment. If circumstances arise in the future that render the purpose of this Easement impossible to accomplish, this Easement may be terminated or extinguished, whether in whole or in part, by judicial proceedings in a court of competent jurisdiction or by mutual written agreement of the parties. Unless otherwise required by applicable law at the time, in the event of any sale of all or a portion of the Property (or any other property received in connection with an exchange or involuntary conversion of the Property) after such termination or extinguishment, and after the satisfaction of prior claims and net of any costs or expenses association with such sale, Grantor and Grantee shall divide the proceeds from such sale (minus any amount attributable to the value of improvements made by Grantor after the effective date of this Easement, which amount is reserved to Grantor) in accordance with their respective percentage interests in the fair market value of the Property, adjusted, if necessary, to reflect a partial termination or

extinguishment of this Easement. Grantor shall use all such proceeds received by Grantor in a manner consistent with Grantor's conservation purposes.

14.2 Condemnation. If all or any part of the Property is taken by exercise of the power of eminent domain or acquired by purchase in lieu of condemnation, whether by public, corporate, or other authority, so as to terminate this Easement, in whole or in part, Grantor and Grantee shall act jointly to recover the full value of their interests in the Property, including Grantee's interest in the amount of the Grant Award, subject to the taking or in lieu of purchase and all direct or incidental damages resulting there from. All expenses reasonable incurred shall be paid out of the amount recovered.

15. Amendment. Notwithstanding the provisions related to extinguishment of this Easement, if circumstances arise under which an amendment to or modification of this Easement would be appropriate, the Grantor and Grantee are free to jointly amend this Easement, provided that no amendment shall be allowed that will affect the qualifications of this document as an Easement under the laws of Arizona, and any amendment shall be consistent with the purpose of this Easement and shall not have a material negative affect on the Conservation Values. Such amendments shall be in writing and executed by both Grantor and Grantee.

16. Subsequent Transfers. Grantor agrees to incorporate the terms of this Easement by reference in any deed or other legal instrument by which they divest themselves of any interest in all or a portion of the Property, including, without limitation, a leasehold interest. Grantors further agree to give written notice to Grantee of the transfer of any interest at least 30 days prior to the date of such transfer. The failure of Grantors to perform any act required by this paragraph shall not impair the validity of this Easement or limit its enforceability in any way.

17. Estoppel Certificates. Upon request by Grantor, Grantee shall within 30 days of receiving the request, execute and deliver to Grantor, or to any party designated by Grantors, any document, including an estoppel certificate, which certifies, to the best of Grantee's knowledge, Grantor's compliance with any obligation of Grantor contained in this Easement or otherwise evidences the status of this Easement. Such certification shall be limited to the condition of the Property as of Grantee's most recent inspection. If Grantor requests more current documentation, Grantee shall conduct an inspection, at Grantor's expense, within 30 days of receipt of Grantor's written request therefore.

18. Notices. Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and either served personally or sent by first class mail, postage pre-paid, addressed as follows:

To Grantors:
City of Flagstaff
211 West Aspen Avenue
Flagstaff, Arizona 86001

To Grantee:
Arizona State Parks
1300 West Washington Street
Phoenix, Arizona 85007

or to such other address as either party from time to time shall designate by written notice to the other.

19. Recordation. Grantee shall record this instrument in timely fashion in the official records of Maricopa County, Arizona, and may re-record it at any time as may be required to preserve its rights in this Easement.

20. General Provisions.

20.1 Controlling Law. The laws of the State of Arizona shall govern the interpretation and performance of this Easement. Proper venue for any dispute relating to the Easement shall be the Superior Court of Maricopa County.

20.2 Liberal Construction. Any general rule of construction to the contrary notwithstanding, this Easement shall be liberally construed in favor of the grant to effect the purpose of this Easement and the policy and purpose of A.R.S. §33-271 through §33-276 and A.R.S. §41-511.23. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purpose of this Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

20.3 Severability. If any provision of this Easement, or the application thereof to any person or circumstance, is found to be invalid, the remainder of the provisions of this Easement, or the application of such provision to persons or circumstances other than those as to which it is found to be invalid, as the case may be, shall not be affected thereby.

20.4 Entire Agreement. This instrument sets forth the entire agreement of the parties with respect to the Easement and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Easement, all of which are merged herein.

20.5 No Forfeiture. Nothing contained herein will result in a forfeiture or reversion of Grantors' title in any respect.

20.6 Successors. The covenants, terms, conditions, and restrictions of this Easement shall be binding upon, and inure to the benefit of, the parties, hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property. The terms "Grantor" and "Grantee," wherever used herein, and any pronouns used in place thereof, shall include, respectively, the above-named Grantor and its successors, and assigns, and the above-named Grantee and its successors and assigns.

20.7 Termination of Rights and Obligations. A party's rights and obligations under this Easement terminate upon transfer of the party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

20.8 Captions. The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

20.9 Non-discrimination. The Parties hereby acknowledge that they are bound by Executive Order 99-4 concerning non-discrimination in employment.

20.10 Non-Availability of Funds. Every payment obligation of the Grantee and Grantor under this Easement is conditioned upon the availability of funds appropriated or allocated for the payment of such obligation. If funds are not allocated and available for the continuance of this Easement, this Easement may be terminated by the Grantee at the end of the period for which funds are available. No liability shall accrue to the Grantee in the event this provision is exercised, and the Grantee shall not be obligated or liable for any future payments or for any damages as a result of termination under this paragraph.

20.11 Counterparts. The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

TO HAVE AND TO HOLD unto Grantee, its successors, and assigns forever.

IN WITNESS WHEREOF, the Grantor and the Grantee have executed this Deed of Conservation Easement, which shall become effective immediately upon signature by both parties.

GRANTOR: CITY OF FLAGSTAFF

Kevin Burke
Signature

Kevin Burke
Print Name

City Manager
Title

10/25/12
Date

ACKNOWLEDGMENT BY
GRANTOR

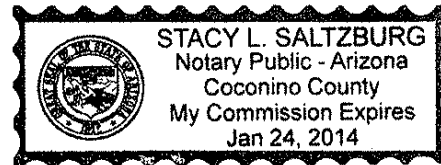
State of Arizona)
County of Coconino)

The foregoing instrument was
acknowledged before me
this 25th day of October, 2012

By Kevin Burke
GRANTOR

Stacy L. Saltzburg
Notary Public

(Seal)



GRANTEE:
ARIZONA STATE PARKS BOARD

Bryan Martyn
Signature

BRYAN MARTYN
Print Name

DIRECTOR
Title

11/8/2012
Date

ACKNOWLEDGMENT BY
GRANTEE

State of Arizona)
County of Maricopa)

The foregoing instrument was
acknowledged before me,
this 8th day of November, 2012

By BRYAN MARTYN
GRANTEE

Vivia Strang
Notary Public

(Seal)



Appendix C: Picture Canyon Annual Monitoring Checklist

Picture Canyon Natural and Cultural Preserve Annual Monitoring Checklist

Site Visit Information

Monitor:

Monitoring Date:

Hours Spent on Property:

Method of Monitoring (foot, car, aerial, etc.):

Areas of Property Visited (include coordinates, if possible):

Areas of Property Not Visited:

Monitoring Site Visit Observations

Property Improvements

Roads:

Trails:

Fencing:

Utilities (powerlines, gas lines, water utilities):

Signs:

Gates:

Other:

Resource Management and Land Uses

Easements and Leases:

Have any water or utility improvements been constructed?

Forest Health and Vegetation:

Are noxious or invasive weeds present on the property? Are they encroaching into the riparian area?

Are there forest health improvement projects (e.g. thinning, broadcast/prescribed burning) occurring on the property?

Is there evidence of insects or disease (mistletoe boughs, sap pitches, etc.)?

Public Use:

Have there been any changes to public access to the parcel?

Is there any evidence of illegal vehicle trespass onto the property?

What type of recreational activities did you encounter during your visit?

Have any new trails been constructed as part of the planned trail system?

Are there new unauthorized user-created trails on the property?
Is there any evidence of illegal dumping or pollution?
Is there any evidence of overnight use (e.g. campers, campfire rings)?

Wildlife:

Have any habitat improvement projects been completed?
Is there evidence of wildlife presence?

Water Resources:

Have there been any impacts to the riparian area or Rio de Flag floodplain?
Are cattails encroaching into the deep water pond?
Is there any damage to the stream channel (e.g. banks devoid of vegetation, noticeable erosion)?

Adjacent Property Owners:

Is there evidence of encroachment or unauthorized use?
Are there any noticeable adverse impacts occurring from adjacent properties?

Archaeological Resources:

Is there any evidence of damage to petroglyphs (e.g. scratching)?

Miscellaneous:

Have there been any impacts to the property from natural causes (e.g. floods, fires, stormwater run-off)?
Do you have any general observations or notes that are not captured in other sections of this report (wildlife or plants seen, habitat or land condition)?

Post-Monitoring

Summarize any potential problems, issues of concern, or conflicts with the terms of the easement.

Please list out any questions, requests, or required follow-up items.

Please list out any potential issues for next year's monitoring visit.

Monitored by:

Signature:
Date:
Name:
Title:

Reviewed by:

Signature:
Date:
Name:
Title:

Appendix D: Observatory Mesa ALTA Survey

ALTA/ACSM LAND TITLE SURVEY

SECTION 12, T 21 N, R 6 E, & PORTION OF SECTION 6,
SECTIONS 8, 18 & PORTIONS OF SECTION 19, T 21 N, R 7 E,
G & SRM, COCONINO COUNTY, ARIZONA

PARCEL DESCRIPTIONS

Containing 19,832.9/8 square feet (455.30 acres), more or

Containing 19,852,918 square feet (455.30 acres), more or less;

The West half, and the West half of the East half of Section 8,
Township 21 North, Range 7 East, Gila and Salt River Meridian,
Coconino County, Arizona.

Containing 26,448,688 square feet (476.33 acres), more or less;

All of Section 12, Township 21 North, Range 6 East, Gila and Salt River Meridian, Coconino County, Arizona.

Containing 27,900,743 square feet (643.51 acres), more or less;

Government Lots 1 through 4; the northeast quarter, the East half of the West half; and that portion of the Southeast quarter lying Northwesternly of the southerly line of the BNSF (formerly the Atchison, Topeka and Santa Fe) Railway right-of-way situated in Section 18, Township 21 North, Range 7 West, Gila and Salt River Meridian, Coconino County, Arizona,

except that pace described in instrument No. 3052197, RCC.

Containing 27,467,742 square feet (630.57 acres), more or less;

Commencing at S. 3, and the northeast quarter of the of the
northwest quarter of the northeast quarter of Section 19,
Township 21 North, Range 7 East, Gila and Salt River Meridian,
Coconino County, Arizona.

Containing 1,285,455 square feet (29.51 acres), more or less;

that portion of the North half of the North half of the Northeast quarter of Section 19, Township 21 North, Range 7 West, Gila and Salt River Meridian, Coconino County, Arizona, lying north of the south line of the Burlington Northern and Santa Fe Railway.

Containing 826,508 square feet (18.98 acres), more or less.

NOTE: Values and systems are interpreted to mean aliquot portions, not areas.

ADDITIONAL DOCUMENTS REVIEWED

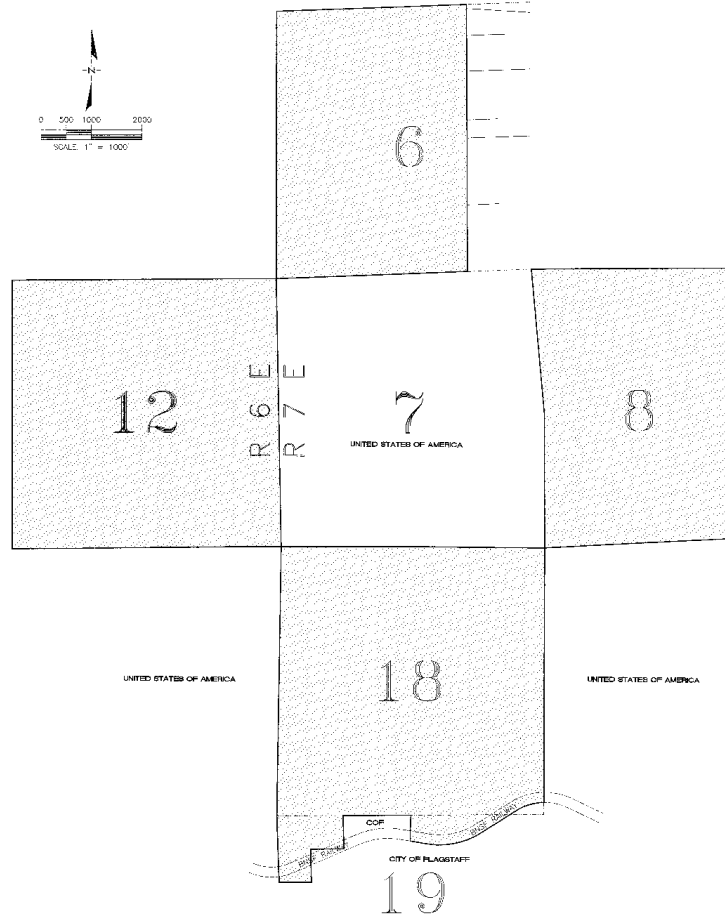
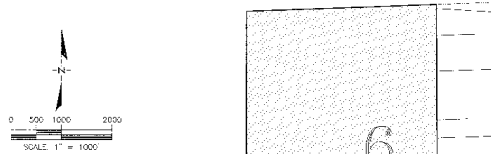
A.T. & S.F. RAILWAY CO. "SECOND FILING MAP", APPROVED MAY 22, 1916
BY THE U.S. DEPT. OF INTERIOR

U.S. G.L.M. SURVEY PLAT NOS. 00915, 00920 & 00922
U.S. G.L.M. FIELD BOOK NOS. 42R342 & 42R387

CCUSING COUNTY RECORDER INSTRUMENT NOS. 1'00104, 1426418,
3090271, 3552721, 3575501, 900875, 1051259, 1464856, 3252759,
3476405, 600932, 900933, 3052179, 3323441, 900777, 5496959,
3601439, 1273369

SURVEY NOTES

1. THIS MAP WAS PREPARED FROM NOTES OF A FIELD SURVEY PERFORMED
UNLESS A WRITTEN ORDER BY THE WORKS OF APRIL 1, 1902.
2. TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS A COMPLETE
AND ACCURATE REPRESENTATION OF SAID SURVEY.
3. COMMENTS ARE OF THE CHARACTER AND OCCUPY THE POSITIONS SHOWN.
4. THIS MAP DOES NOT PURPORT TO VERIFY THE OWNERSHIP OF ANY
PROPERTY OR CLAIMS OR INVOLVED IN THIS SURVEY. ACTUAL OWNERSHIP
MAY BE AFFECTED BY SUBSEQUENT ACTS OF OCCUPANCY, AND
OTHER UNLAWFUL ACTS.
5. THIS SURVEY WAS PERFORMED IN CONNECTION WITH PIONEER TITLE AGENCY, INC.
REPORT OF TITLE NO. 1006/220, DATED APRIL 15, 1902 AT 7:30 A.M.



FLOOD ZONE

ALL OF THE PROPERTY SURVEYED LIES IN FEMA ZONE X

FIELD MEASUREMENTS USED TO PREPARE THIS MAP WERE MADE IN APRIL - JUNE, 2015.

BASIS OF BEARINGS: DERIVED FROM GPS OBSERVATIONS

CPS OBSERVATIONS MADE UTILIZING GPS STATION: NAD TACSTAT CORP ARP: PID J.1882
NAI 83(2011) POSITION: 33° 16' 39.35178" N

11" .59"
MAY 88 02110 100 F: 6979.1 Hz

NORTHBRIDGE ESTATE
CASE 2 MAR 45 BCC

— 112 —

WESTRIDGE
CABE 9, MAP 219, ROC

1

BOOK 14, PAGE 16, FCC

SHEET INDEX

SHEET 2: SECTION 6
SHEET 3: SECTION 12
SHEET 4: SECTION 8
SHEET 5: SECTIONS 18 & 19

SURVEYOR'S CERTIFICATION

TO THE CITY OF FLAGSTAFF, ARIZONA.

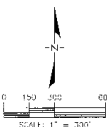
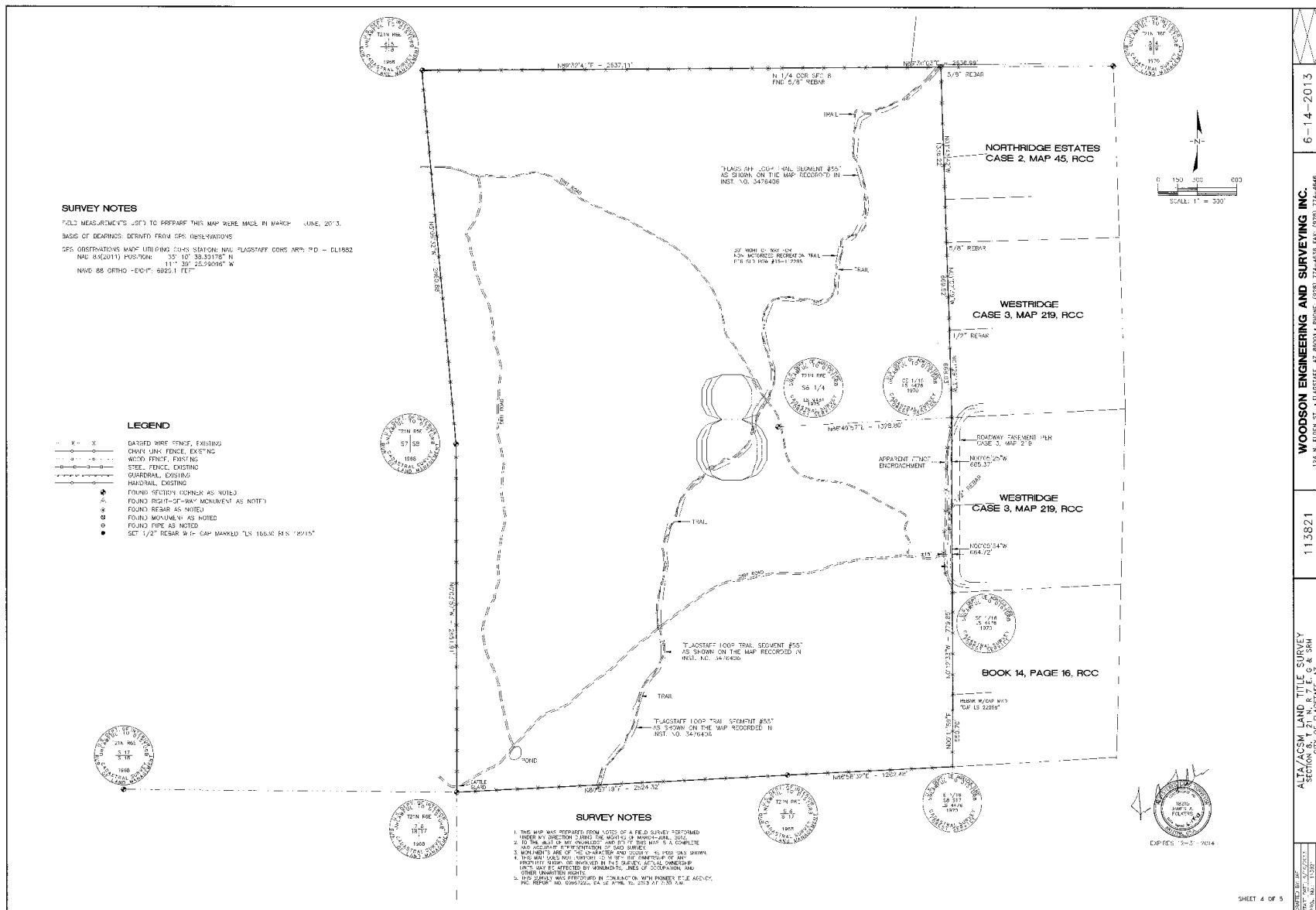
THIS S TO GRAY SHA. THIS MAP AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM AND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 11A, 12, 13, 18, 19, AND 20 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON JUNE 12, 2013.

DATE OF PLAT OR MAP: June 14, 2013.



EXPRS 12 31 2014

SHEET 1 OF 5





Appendix E: Arizona State Parks Conservation Easement for Observatory Mesa

Attachment C

DEED OF CONSERVATION EASEMENT

THIS GRANT DEED OF CONSERVATION EASEMENT is made this 24th day of JANUARY, 2014, ~~2013~~ by **The City of Flagstaff**, having an address at **211 West Aspen Avenue, Flagstaff, Arizona 86001** ("Grantor"), in favor of Arizona State Parks Board, having an address at 1300 W. Washington, Phoenix, Arizona, 85007 ("Grantee").

WITNESSETH:

WHEREAS, Grantor is the sole owner in fee simple of certain real property in Coconino County, Arizona, more particularly described in Exhibit A attached hereto and incorporated by this reference (the "Property"); and

WHEREAS, the Property possesses ecological values (collectively, "conservation values") of great importance to Grantors and the people of the State of Arizona; and

WHEREAS, in particular, Observatory Mesa, located in west Flagstaff is a southerly facing mesa that is an integral part of the ecology centered on the San Francisco Peaks. Elevation, creviced drainages, and sloping terrain support a diversity of plants and wildlife. Its location provides wildlife grazing between the Peaks and lower elevations. Observatory Mesa overlooks Flagstaff and much of the surrounding countryside, with unobstructed views extending north to the San Francisco Peaks and south to the Mogollon Rim; and

WHEREAS, the specific conservation values of the Property are further documented in an inventory of relevant features of the Property, submitted by Grantor as application for matching funds from the Land Conservation Fund through the Growing Smarter Trust Land Acquisition Grant Program and incorporated by this reference ("Baseline Documentation"), which consists of reports, maps, photographs, and other documentation that the parties provide, collectively, an accurate representation of the Property at the time of this grant and which is intended to serve as an objective, though nonexclusive, information baseline for monitoring compliance with the terms of this grant; and

WHEREAS, Grantor intends that the conservation values of the Property be preserved and maintained by permitting only those land uses on the Property that do not significantly impair or interfere with them, including, without limitation, those land uses relating to existing at the time of the grant; and

WHEREAS, Grantor further intends, as owner of the Property, to convey to Grantee the right to preserve and protect the conservation values of the Property in perpetuity; and

WHEREAS, Grantee is an Arizona state agency whose primary purpose is to manage and conserve Arizona's natural, cultural and recreational resources for the benefit of the people;

NOW, THEREFORE, in consideration of a Grant Award in the amount not to exceed \$6,000,000 and in consideration of the above and the mutual covenants, terms, conditions and restrictions contained herein, and pursuant to the laws of Arizona and in particular A.R.S. § 33-271 through § A.R.S. 33-276 and A.R.S. §41-511.23, Grantor hereby voluntarily grants and conveys to Grantee a conservation easement in perpetuity over the Property of the nature and character and to the extent hereinafter set forth ("Easement").

1. **Purpose.** It is the purpose of this easement to assure that the Property will be retained forever in predominantly the condition reflected in the Baseline Documentation referenced in this document and to prevent any use of the Property that will significantly impair or interfere with the conservation values of the Property. Grantor intends that this Easement will confine the use of the Property to such activities, including, without limitation, those involving passive recreational uses compatible with the maintenance of the Property's Conservation Values, such as hiking and horseback riding, educational gatherings, periodic planting of native plant species, release of rehabilitated or displaced wildlife and other activities, as are not inconsistent with the purpose of this Easement. This Easement is intended to assure that the goals of the Growing Smarter Act, as amended, to conserve open spaces in or near urban areas and other areas experiencing high growth pressures, will be met. This Easement seeks to conserve open space, defined as land that is generally free of uses that would jeopardize the conservation values of the land or development that would obstruct the scenic beauty of the land. Conserved land remains open space if the stewards of the parcel maintain protection of both the natural and cultural assets for the long-term benefit of the land and the public and the unique resources that the area contains, such as scenic beauty, protected plants, wildlife, archaeology, passive recreation values and the absence of extensive development.
2. **Rights of Grantee.** To accomplish the purpose of this Easement the following rights are conveyed to Grantee by this easement:
 - (a) To preserve and protect the conservation values of the Property;
 - (b) To enter upon the Property at reasonable times in order to monitor Grantor's compliance with and otherwise enforce the terms of this Easement in accordance with paragraph 8; provided that, except in cases where Grantee determines that immediate entry is required to prevent,

terminate, or mitigate a violation of this Easement, such entry shall be upon prior reasonable notice to Grantor; unless entry is open to the public, in which case notice to enter upon Property is assumed if it complies with the Grantor's enforced rules of public access, and Grantee shall not in any case unreasonably interfere with Grantor's use and quiet enjoyment of the Property; and

- (c) To prevent any activity on or use of the Property that is inconsistent with the purpose of this Easement and to require the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use, pursuant to the remedies set forth in paragraph 8.
3. **Restricted Uses.** Regardless, no more than 10% of the acquired land, up to a limit of 20 acres total, may be eligible for alteration or development, and all such proposed work must be approved by the Grantee in advance, subject to Paragraph 6 below. No changes may be made to the parcel that would seriously or negatively affect its conservation and open space values. Any activity on or use of the Property inconsistent with the purpose of this Easement is prohibited. Without limiting the generality of the foregoing, the following activities and uses are allowed only upon prior approval of the Grantee:
- (a) **Construction of Buildings and Other Structures.** The construction or reconstruction of any building or other structure or improvement, except those existing on the date of this Easement, is prohibited, except those alterations which are approved in advance by the Grantee and listed in sub-paragraphs (b) and (c).
 - (b) **Trail and Parking Lot Construction.** No trail, road, parking lot, ramada, staging area or other man made structure shall be constructed without the advance written permission of Grantee. Such permission shall not be unreasonably withheld unless Grantee determines that the proposed location of any trail, road, parking lot, ramada or staging area will substantially diminish or impair the Conservation Values of the Property or is otherwise inconsistent with this Deed.
 - (c) **Signage or Billboards.** No signs, billboards, awnings or advertisements shall be displayed or placed on the Property, except for appropriate and customary signs for interpretive and recreational purposes, such as "no trespassing" signs and trail markers, and then only with advance written permission from Grantee. Under no circumstances shall any sign or marker be erected that materially adversely affects the Conservation Values of the Property.
 - (d) **Temporary Fundraising Activity.** Grantor may request the right to perform periodic and temporary fundraising activities on the Property if the revenues earned from those activities will be used for stewardship of

the Property. Such fundraising activities shall be allowed only upon written approval of Grantee if Grantee determines that the proposed activity will not substantially diminish or impair the Conservation Values of the Property or is otherwise inconsistent with this Deed.

Where Grantee's approval is required, as set forth above, Grantee shall grant or withhold its approval in writing within a reasonable period of time. Grantor's written request shall include a description of the nature, scope, design, location, timetable, and any other material aspect of the proposed activity in sufficient detail to permit Grantee to make an informed judgment as to its consistency with purpose of this Easement. Grantee's approval may be withheld only upon a reasonable determination by Grantee that the action as proposed would be inconsistent with the purpose of this Easement. If Grantee does not respond to the request within 60 days, the request shall be deemed denied. In the event of approval, any deviation from the nature, scope, design, location, timetable or any other material aspect of the proposed activity requires that Grantor submit an additional request for approval.

4. **Prohibited Uses.** Any activity on or use of the Property inconsistent with the purpose of this Easement is prohibited. Without limiting the generality of the foregoing, the following activities and uses are expressly prohibited:

- (a) **Subdivision.** Any division or subdivision of title to the Property, whether by physical or legal process, is prohibited.
- (b) **Commercial or Industrial Activity.** No commercial or industrial uses shall be allowed on the Property.
- (c) **Mining.** The mining or extraction of soil, sand, gravel, rock, oil, natural gas, fuel, or any other mineral substance is prohibited.
- (d) **Water Rights.** Grantor shall retain and reserve the right to use water rights sufficient to maintain and improve the Conservation Values of the Property, and shall not transfer, encumber, lease, sell, or otherwise separate water rights necessary and sufficient to maintain and improve the Conservation Values of the Property from title to the Property itself.
- (e) **Trash and Dumping.** The dumping or uncontained accumulation of any kind of trash or refuse on the Property is prohibited.

5. **Reserved Rights.** Grantors reserve to themselves, and to their personal representatives, heirs, successors, assigns, all rights accruing from their ownership of the Property, including the right to engage in, or permit or invite others to engage in, all uses of the Property that are not expressly prohibited herein and are not inconsistent with the purpose of this Easement. Without limiting the generality of the foregoing, and subject to the terms of paragraph 3, the following rights are expressly reserved:

- (a) To engage in and permit others to engage in recreational uses of the Property, including, without limitation, hiking, horseback riding, and other forms of passive recreation that require no surface alteration or other development of the Property.
- (b) To engage in and permit others to engage in educational and scientific study activities, without limitation, provided that no unauthorized alteration of the Property or of objects or sites addressed in paragraph 7 will occur as a result of these activities.
- ~~(b)(c)~~ To remove invasive plant species and to re-vegetate portions of the Property with indigenous plants if needed after flood, fire, or other disturbance.

Grantor is required to notify Grantee prior to undertaking or permitting new activities on the Property, if not specifically listed above, in order to afford Grantee an adequate opportunity to monitor the activities in question to ensure that they are not inconsistent with the purpose of the Easement. Grantor shall provide notice to Grantee in writing not less than 60 days prior to the date Grantor intends to undertake or permit the new activity in question.

6. Notice of Intention to Undertake Certain Permitted Actions.

- 6.1 Where Grantee's approval is required, as set forth in paragraphs 3(a) through 3(d), Grantee shall grant or withhold its approval in writing within 60 days of receipt of Grantor's written request therefore. The written request shall include a description of the nature, scope, design, location, timetable, and any other material aspect of the proposed activity in sufficient detail to permit Grantee to make an informed judgment as to its consistency with purpose of this Easement. Grantee's approval may be withheld only upon a reasonable determination by Grantee that the action as proposed would be inconsistent with the purpose of this Easement. If Grantee does not respond to the request within the 60-day time frame, the request shall be deemed denied. In the event of approval, any deviation from the nature, scope, design, location, timetable or any other material aspect of the proposed activity requires that Grantor submit an additional request for approval.
- 6.2 Grantor is required to notify Grantee prior to undertaking permitted activities consistent with the Easement, other than those activities governed by paragraphs 3(a) through 3(d) and 6.1 to afford Grantee an adequate opportunity to monitor the activities in question to ensure that they are not inconsistent with the purpose of the Easement. Grantor shall provide notice to Grantee in writing not less than 60 days prior to the date Grantor intends to undertake the activity in question.

7. Historic Properties and Preservation of Resources.

7.1 Definition. Historic Properties are defined as sites, buildings, structures and objects significant in this state's history, architecture, archaeology, engineering and culture which meet eligibility criteria which the Arizona Parks Board establishes for listing on the Arizona Register of Historic Places or which are listed on the National Register of Historic Places.

7.2 General Preservation. Grantor agrees to consider the use of and impact upon historic properties located on the Property and to undertake any reasonable preservation that is necessary to carry out the terms of this Easement. In addition, the Grantor agrees to avoid any demolition, substantial alteration or significant deterioration of historic properties and objects on the Property.

7.3 Land Uses and Historic Preservation. Grantor agrees that only those uses that are compatible with preservation of the cultural resources located on the Property shall be allowed on the Property and ensure that the pre-historical, historical, architectural or culturally significant values will be preserved or enhanced.

7.4 Unintentional Disturbance. The Grantor agrees to monitor the Property for the unintentional disturbance of human remains or funerary objects and historic properties on the Property and shall report any such disturbance to the Director of the Arizona State Museum, the State Historic Preservation Officer and the Grantee. The Grantor agrees to exercise any and all measures recommended by either the Director of the Arizona State Museum, or other permitting authority as established by state law, or the Grantee, to see that on further disturbance of the remains or objects occurs.

7.5 Prohibition on Excavation. The Grantor agrees that it will not disturb or excavate or grant any other person permission to disturb or excavate in or upon any historic property, or any historic or prehistoric ruin, burial ground, archaeological or vertebrate pale ontological specimen. For the purpose of this provision, archaeological specimen means any item resulting from past human life or activities which is at least 50 years old including petroglyphs, pictographs, paintings, pottery, tools, ornaments, jewelry, textiles, ceremonial objects, weapons, armaments, vessels, vehicles and human skeletal remains. Archaeological specimen does not include arrowheads, coins or bottles. Notwithstanding the applicability of these prohibitions, the Grantee, in consultation with the State Historic Preservation Officer, may consider and allow for the excavation in or upon a historic property, provided that the Conservation Values of the Property are not adversely affected. In addition, any excavation of disturbance that is allowed by the Grantee is still subject to approval by and the permitting requirements of the Director of the Arizona State Museum, or other permitting authority established in law.

7.6 Prohibition on Defacing Property. The Grantor agrees not to deface or otherwise alter any site or object on the Property and embraced within the terms stated in provisions 7.1 through 7.5. The Grantor further agrees to make reasonable efforts to avoid the potential that persons and entities entering upon the site for approved purposes may deface or otherwise alter any site or object embraced within the terms stated in provisions 7.1 through 7.5.

7.7 Reporting Discoveries. The Grantor agrees that during the course of acting as steward of the Property and especially during any work to prepare the Property for public access, such as a survey, excavation, construction or other like activity, that it shall report promptly to the Director the Arizona State Museum, or other permitting authority as established by state law, the State Historic Preservation Officer and the Grantee, the existence of any archaeological, pale ontological or historical site or object that is at least 50 years old and that is discovered in the course of such survey, excavation, construction, other like activity, or other activities undertaken as the steward of the Property. All such discoveries are subject to the provisions of the Arizona Antiquities Act. Any discoveries may require treatment such as remediation or restoration if the site or object was adversely impacted as a result of the survey, excavation, construction or other like activity, which the cost of any such remediation or restoration shall be borne by Grantor.

8. Grantee's Remedies.

8.1 Notice of Violation; Corrective Action. If Grantee determines that a violation of the terms of this Easement has occurred or is threatened, Grantee shall give written notice to Grantors of such violation and demand corrective action sufficient to cure the violation and, where the violation involves injury to the Property resulting from any use or activity inconsistent with the purpose of this Easement, to restore the portion of the Property so injured to its prior condition in accordance with a plan approved by Grantee at Grantor's expense.

8.2 Injunctive Relief. If Grantor fails to cure the violation within 20 days after receipt of notice thereof from Grantee, or under circumstances where the violation cannot reasonably be cured within a 20 day period, fail to begin curing the violation within the 20 day period, or fail to continue diligently to cure such violation until finally cured, Grantee may bring an action at law or in equity in a court of competent jurisdiction to enforce the terms of this Easement, to enjoin the violation, ex parte as necessary, by temporary or permanent injunction, and to require the restoration of the Property to the condition that existed prior to any such injury.

8.3 Damages. Grantee shall be entitled to recover damages up to, but not in excess of the grant amount, directly resulting from violation of the terms of this Easement or injury to any conservation values protected by this Easement, including, without limitation, damages for the loss of scenic, aesthetic, or environmental values. Without limiting the Grantors' liability therefore, Grantee, in its sole discretion, may apply any damages recovered to the cost of undertaking any corrective action on the Property.

8.4 Emergency Enforcement. If Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values of the Property, Grantee may pursue its remedies under this paragraph 8 without prior notice to Grantor or without waiting for the period provided for cure to expire.

8.5 Scope of Relief. Grantee's rights under this section 8 apply equally in the event of either actual or threatened violations of the terms of this Easement. Grantor agrees that Grantee's remedies at law for any violation of the terms of this Easement are inadequate and that Grantee shall be entitled to the injunctive relief described in paragraph 8.2, both prohibitive and mandatory, in addition to such other relief to which Grantee may be entitled, including specific performance of the terms of this Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Grantee's remedies described in this Paragraph 8 shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.

8.6 Costs of Enforcement. All reasonable costs incurred by Grantee in enforcing the terms of this Easement against Grantors, including, without limitation, costs and expenses of suit and reasonable attorneys' fees, and any costs of restoration necessitated by Grantors' violation of the terms of this Easement shall be borne by Grantor.

8.7 Forbearance. Forbearance by Grantee to exercise its rights under this Easement in the event of any breach of any term of this Easement by Grantor shall not be deemed or construed to be a waiver by Grantee of such term or of any subsequent breach of the same or any other term of this Easement or of any of Grantee's rights under this Easement. No delay or omission by Grantee in the exercise of any right or remedy upon any breach by Grantor shall impair such right or remedy or be construed as a waiver.

8.8 Waiver of Certain Defenses. Grantors hereby waive any defense of laches, estoppel, or prescription.

8.9 Acts Beyond Grantor's Control. Nothing contained in this Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the Property resulting from causes beyond Grantor's control, including, without limitation, fire, flood, storm, earth movement, or from any prudent action taken by Grantor under emergency conditions to prevent, abate, mitigate significant injury to the Property resulting from such causes. Notwithstanding the foregoing, nothing herein shall preclude Grantor's and Grantee's rights to pursue any third party for damages to the Property from vandalism, trespass or any other violation of the terms of this Easement.

9. Arbitration. Notwithstanding the remedies available to the parties pursuant to Paragraph 8 above, the parties agree to resolve all disputes arising out of or relating to this Easement through arbitration, after exhausting applicable administrative review, to the extent required by A.R.S. §12-1518 except as may be required by other applicable statutes.

10. Access. Grantor agrees to provide reasonable public access to the Property and agrees to impose no restrictions that would limit reasonable public access.

11. Records Retention. Grantor agrees to retain all data, books and other records ("Records") relating to the grant for a period of five years. All records shall be open to inspection and audit by the grantee at reasonable times. Upon request, the Grantor will provide a legible copy of any or all such records within a reasonable time.

12. Annual Reports and Certification. Grantor agrees to report annually on the condition of the Property and to report any change in the Property from the Baseline Documentation to the Grantee in a format of the Grantee's choosing. The Grantor shall certify compliance with the obligations of the Deed of Conservation Easement every year in perpetuity, on a form to be provided by the BOARD. In addition, on-site inspections shall be conducted periodically at the discretion of the BOARD. The following point shall be taken into consideration during the inspection of properties that have been acquired or developed with grant assistance: retention and use appearance, maintenance, management, availability, environment, signing, and interim use.

13. Costs, Liabilities, Taxes, and Environmental Compliance.

13.1 Costs, Legal Requirements, and Liabilities. Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property, including the maintenance of adequate liability self-insurance coverage. Grantor remains solely responsible for obtaining any applicable governmental permits and approvals for any construction or other activity or use shall be undertaken in accordance with all applicable federal, state, and local laws, regulations, and requirements. Grantor shall keep the Property free of any liens arising out of any work performed for, materials furnished to, or obligations incurred by the Grantors.

13.2 Taxes. Grantor shall pay before delinquency all taxes, assessments, fees, and charges of whatever description levied on or assessed against the Property by competent authority (collectively "taxes"), including any taxes imposed upon, or incurred as a result of, this Easement, and shall furnish Grantee with satisfactory evidence of payment upon request.

13.3 Representations and Warranties. Grantors represent and warrant that, after reasonable investigation and to the best of their knowledge:

- (a) No substance defined, listed or otherwise classified pursuant to any federal, state, or local law, regulation, or requirement as hazardous, toxic, polluting, or otherwise contaminating to the air, water, soil, or in any way harmful or threatening to human health or the environment exists or has been released, generated, treated, stored, used disposed of, deposited, abandoned, or transported in, on, from or across the Property;
- (b) There are not now any underground storage tanks located on the Property, whether presently in service or closed, abandoned, or decommissioned, and no underground storage tanks have been removed

from the Property in a manner not in compliance with applicable federal, state, and local laws, regulations, and requirements;

- (c) Grantor and the Property are in compliance with all federal, state, and local laws, regulations, and requirements applicable to the Property and its use;
- (d) There is no pending or threatened litigation in any way affecting, involving, or relating to the Property; and
- (e) No civil or criminal proceedings or investigations have been instigated at any time or are now pending, and no notices, claims, demands, or orders have been received, arising out of any violation or alleged violation of, or failure to comply with, any federal, state, local law, regulation, or requirement applicable to the Property and its use, nor do there exist any facts or circumstances that the Grantor might reasonably expect to form the basis for any such proceedings, investigations, notices, claims, demands, or orders.

13.4 Remediation. If, during Grantor's ownership of the Property, there occurs, a release in, on, or about the Property of any substance now or hereafter defined, listed, or otherwise classified pursuant to any federal, state, or local law, regulation, or requirement as hazardous, toxic, polluting, or otherwise contaminating to the air, water, or soil, or in any way harmful or threatening to human health or the environment, Grantor agree to take all steps reasonably necessary to assure its containment and remediation, including any cleanup that may be legally required, unless the releases were caused by the Grantee, in which case Grantee shall be responsible therefore.

13.5 Control. Nothing in this Easement shall be construed as giving rise, in the absence of a judicial decree, to any right or ability in Grantee to exercise physical or managerial control over the day-to-day operations of the Property, or any of Grantor's activities on the Property, or otherwise to become an operator with respect to the Property within the meaning of The Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA").

14. Extinguishment and Condemnation.

14.1 Extinguishment. If circumstances arise in the future that render the purpose of this Easement impossible to accomplish, this Easement may be terminated or extinguished, whether in whole or in part, by judicial proceedings in a court of competent jurisdiction or by mutual written agreement of the parties. Unless otherwise required by applicable law at the time, in the event of any sale of all or a portion of the Property (or any other property received in connection with an exchange or involuntary conversion of the Property) after such termination or extinguishment, and after the satisfaction of prior claims and net of any costs or expenses association with such sale, Grantor and Grantee shall divide the proceeds from such sale (minus any amount attributable to the value of improvements made by Grantor after the effective date of this Easement, which amount is reserved to Grantor) in accordance with their respective percentage interests in the fair market value of the Property, adjusted, if necessary, to reflect a partial termination or

extinguishment of this Easement. Grantor shall use all such proceeds received by Grantor in a manner consistent with Grantor's conservation purposes.

14.2 Condemnation. If all or any part of the Property is taken by exercise of the power of eminent domain or acquired by purchase in lieu of condemnation, whether by public, corporate, or other authority, so as to terminate this Easement, in whole or in part, Grantor and Grantee shall act jointly to recover the full value of their interests in the Property, including Grantee's interest in the amount of the Grant Award, subject to the taking or in lieu of purchase and all direct or incidental damages resulting there from. All expenses reasonable incurred shall be paid out of the amount recovered.

15. Amendment. Notwithstanding the provisions related to extinguishment of this Easement, if circumstances arise under which an amendment to or modification of this Easement would be appropriate, the Grantor and Grantee are free to jointly amend this Easement, provided that no amendment shall be allowed that will affect the qualifications of this document as an Easement under the laws of Arizona, and any amendment shall be consistent with the purpose of this Easement and shall not have a material negative affect on the Conservation Values. Such amendments shall be in writing and executed by both Grantor and Grantee.

16. Subsequent Transfers. Grantor agrees to incorporate the terms of this Easement by reference in any deed or other legal instrument by which they divest themselves of any interest in all or a portion of the Property, including, without limitation, a leasehold interest. Grantors further agree to give written notice to Grantee of the transfer of any interest at least 30 days prior to the date of such transfer. The failure of Grantors to perform any act required by this paragraph shall not impair the validity of this Easement or limit its enforceability in any way.

17. Estoppel Certificates. Upon request by Grantor, Grantee shall within 30 days of receiving the request, execute and deliver to Grantor, or to any party designated by Grantors, any document, including an estoppel certificate, which certifies, to the best of Grantee's knowledge, Grantor's compliance with any obligation of Grantor contained in this Easement or otherwise evidences the status of this Easement. Such certification shall be limited to the condition of the Property as of Grantee's most recent inspection. If Grantor requests more current documentation, Grantee shall conduct an inspection, at Grantor's expense, within 30 days of receipt of Grantor's written request therefore.

18. Notices. Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and either served personally or sent by first class mail, postage pre-paid, addressed as follows:

To Grantors:
City of Flagstaff
211 West Aspen Avenue
Flagstaff, Arizona 86001

To Grantee:
Arizona State Parks
1300 West Washington Street
Phoenix, Arizona 85007

or to such other address as either party from time to time shall designate by written notice to the other.

19. Recordation. Grantee shall record this instrument in timely fashion in the official records of Maricopa County, Arizona, and may re-record it at any time as may be required to preserve its rights in this Easement.

20. General Provisions.

20.1 Controlling Law. The laws of the State of Arizona shall govern the interpretation and performance of this Easement. Proper venue for any dispute relating to the Easement shall be the Superior Court of Maricopa County.

20.2 Liberal Construction. Any general rule of construction to the contrary notwithstanding, this Easement shall be liberally construed in favor of the grant to effect the purpose of this Easement and the policy and purpose of A.R.S. §33-271 through §33-276 and A.R.S. §41-511.23. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purpose of this Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

20.3 Severability. If any provision of this Easement, or the application thereof to any person or circumstance, is found to be invalid, the remainder of the provisions of this Easement, or the application of such provision to persons or circumstances other than those as to which it is found to be invalid, as the case may be, shall not be affected thereby.

20.4 Entire Agreement. This instrument sets forth the entire agreement of the parties with respect to the Easement and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Easement, all of which are merged herein.

20.5 No Forfeiture. Nothing contained herein will result in a forfeiture or reversion of Grantors' title in any respect.

20.6 Successors. The covenants, terms, conditions, and restrictions of this Easement shall be binding upon, and inure to the benefit of, the parties, hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property. The terms "Grantor" and "Grantee," wherever used herein, and any pronouns used in place thereof, shall include, respectively, the above-named Grantor and its successors, and assigns, and the above-named Grantee and its successors and assigns.

20.7 Termination of Rights and Obligations. A party's rights and obligations under this Easement terminate upon transfer of the party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

20.8 Captions. The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

20.9 Non-discrimination. The Parties hereby acknowledge that they are bound by Executive Order 99-4 concerning non-discrimination in employment.

20.10 Non-Availability of Funds. Every payment obligation of the Grantee and Grantor under this Easement is conditioned upon the availability of funds appropriated or allocated for the payment of such obligation. If funds are not allocated and available for the continuance of this Easement, this Easement may be terminated by the Grantee at the end of the period for which funds are available. No liability shall accrue to the Grantee in the event this provision is exercised, and the Grantee shall not be obligated or liable for any future payments or for any damages as a result of termination under this paragraph.

20.11 Counterparts. The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

TO HAVE AND TO HOLD unto Grantee, its successors, and assigns forever.

IN WITNESS WHEREOF, the Grantor and the Grantee have executed this Deed of Conservation Easement, which shall become effective immediately upon signature by both parties.

GRANTOR: CITY OF FLAGSTAFF

Kevin Burke
Signature

Kevin Burke
Print Name

City Manager
Title

1/24/14
Date

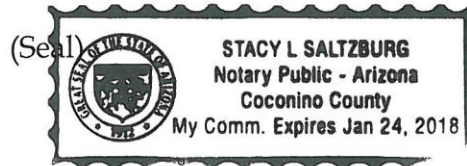
ACKNOWLEDGMENT BY
GRANTOR

State of Arizona)
County of Coconino)

The foregoing instrument was
acknowledged before me
this 24th day of January, 2014

By Kevin Burke
GRANTOR

Stacy L. Saltzburg
Notary Public



GRANTEE:
ARIZONA STATE PARKS BOARD

Bryan Martin
Signature

Bryan Martin
Print Name

Executive Director
Title

1/2/14
Date

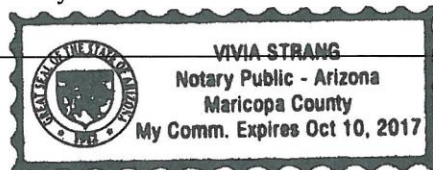
ACKNOWLEDGMENT BY
GRANTEE

State of Arizona)
County of Maricopa)

The foregoing instrument was
acknowledged before me
this 2nd day of January, 2013 2014

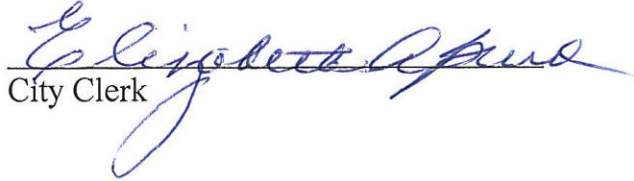
By BRYAN MARTIN
GRANTEE

Vivia Strang
Notary Public




Grant Agency: Arizona State Parks, Growing Smarter Land Acquisition
Project Title: Observatory Mesa
Grant Number: 231303

Attest:


City Clerk

Approved as to Form:


FOR City Attorney